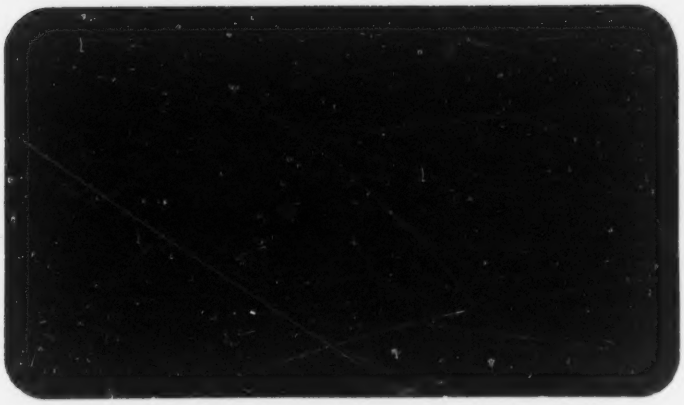

Center for Human Resource Research

The Ohio State University

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by

Joan E. Crowley

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INTRODUCTION

While there is a great deal of research literature available on alcoholism and alcoholics, research on the drinking patterns of the general population is quite scarce. The National Longitudinal Survey of Labor Market of Youth (NLS) provides access to a nationally representative sample of over 12,000 people in the age period when they are leaving adolescence and entering adulthood. The addition of alcohol use questions to the NLS survey provides a unique opportunity to study the development of drinking patterns during a critical life stage.

Alcohol consumption measures were first included on the NLS survey in 1982, when the panel ranged in age from 17 to 24. The 1982 instrument included questions about the age of onset of drinking, a few questions about patterns of drinking in the previous 30 days plus detailed questions about drinking in the past week. The set of items was expanded in 1983 to include detailed information on drinking patterns in the past month. Both sets of questions are listed in Appendix A.

Drinking patterns in the 1982 instrument were described in a previous report. This report will focus on three issues: an assessment of the consistency of responses between 1982 and 1983; a description of the demographics of drinking patterns using indices developed from the 1983 data; and a description of the occupational patterns of drinking among young people.

YOUTH AND ALCOHOL

One major advantage of the NLS for studying alcohol use is its large, nationally representative sampling frame that is supplemented by additional samples of blacks, Hispanics, and economically disadvantaged non-black non-Hispanic youth. While many studies have been done on alcohol consumption patterns among college and high school students, relatively little is known about the non-student population. The NLS allows detailed comparisons of the entire range of educational levels.

Most American youth drink, at least occasionally (Rachal, et al., 1975). Alcohol consumption is sanctioned by social norms. It is also the source of a major, and costly, health and social problem when alcohol use becomes alcohol abuse or alcoholism (Institute of Medicine, 1980). These costs may increase, since consumption levels are rising generally (Smart and Murray, 1981). Most theories of alcohol and drug use focus on internal psychological or psychosocial factors which provide the context for drinking, factors which are not available on the NLS interview.[1] What the NLS can provide is a broad demographic description of alcohol use patterns, plus an investigation of the linkage between drinking patterns and the timing of major life roles--education and school-leaving, family formation and disruption, employment and unemployment.

VALIDITY: INTERNAL CONSISTENCY OF RESPONSES

One major issue in the use of self-report measures of behavior is the accuracy of responses. Several of the questions on the NLS lend themselves to use for assessing the quality of the data.

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[1] C.f. Kandel, 1980; Jessor and Jessor, 1977; Radesovich, et al., 1980.

Both in 1982 and 1983, respondents were asked if they had ever had a drink, if they had ever had a problem at school caused by drinking, and if they had ever had a problem at work caused by drinking. Each question allowed only a yes or no answer. Logically, people who reported drinking or having a problem due to drinking in 1982 should report the same information in 1983. If drinking or problems admitted in 1982 are denied in 1983, one of the reports must be in error.

A discussion of sources of error may facilitate interpretation of the consistency tables. Interviewer or coding errors should be random and quite rare, given that there are no subjective interviewer or coder judgments involved with the classification. Self presentation concerns may produce distortions in reported behavior if the respondent tries to appear "cool" to the interviewer by admitting to drinking which has never occurred or by suppressing reports of drinking to avoid disapproval. Deliberate distortion of drinking behavior should lead to either consistent denial or, if respondents felt more comfortable discussing the topic the second time than they felt on the first, greater disclosure in 1983 than in 1982.

The patterns of drinking shown below and as reported in other research on general populations shows that both drinking and abstaining are common, and thus unlikely to be considered stigmatizing. Previous studies indicate more apparent concealment among heavier drinkers, but fairly good validity overall (Radosevich, et al., 1979). Moreover, these questions arise in the fourth and fifth waves, respectively, of a panel study in which respondents are interviewed annually, often by the same interviewer each year. Motivation to distort responses should be fairly small.

The major expected source of response bias is memory. For youth who drink (or have drunk in the past) on any sort of regular basis, there is no

Table 1. Crosstabulation of Ever Drank 1982 By Ever Drank 1983

	EVER DRANK, 1983			
	NO	YES	%	N
Ever Drank, 1982				
No	56.6	43.4	6.0	968
Yes	1.4	98.6	94.0	10976
N	770	11174		11944
Column Total	4.7	95.3	100.0	

issue about remembering whether alcohol has ever been consumed. There are recent and/or salient episodes to remember. For abstainers, however, there may be simple failures to remember a past episode in which alcohol was consumed, especially if the event was in the relatively distant past. Similarly, the questions refering to problems at school or work ask if there has been a problem ever. Memory errors are more likely the longer the period covered.

A further source of bias stems from the lack of a specific definition of "drink of alcohol" or "problem" at school or work. Some discrepancies may be due to shifts in the interpretation of the question from one year to the next. The interpretation of results is also made more complex by the extremely skewed distribution to the answers to these questions. For all three variables, the larger of the two categories contains over nine tenths of the sample, each year. Drinking is widespread, but reports of problems due to drinking are uncommon. The estimates of abstainers and drinking problems are thus based on a small number of respondents, leading to greater expected instability.

Tables 1 through 3 snow the appropriate cross-tabulations. As with all tables to be presented in this report, computations are done using weights to compensate for oversampling. The N's and tests of statistical significance, however, are based on unweighted data. Table 1 presents the number of youth who report ever having had an alcoholic beverage.

The vast majority of youth report having at least tried alcohol. To address the question of consistency, less than two percent of youth who reported having had a drink by the time of the 1982 interview deny ever drinking in 1983. Stated another way, of those who deny drinking in 1983, twenty percent had admitted drinking prior to the 1982 interview. Over two fifths of the youth who reported never having had a drink in 1982 report having consumed

Table 2. Crosstabulation of Drinking Ever Caused Problems at School 1982 By Drinking Ever Caused Problems at School 1983

	Drinking Ever Caused Problems at School, 1983			
Drinking Ever Caused Problems at School 1982	NO	YES	%	N
No	96.1	3.9	96.8	10303
Yes	49.9	50.1	3.2	327
N	10127	503		10630
Column Total	94.6	5.4	100.0	

Table 3. Crosstabulation of Drinking Ever Caused Problems at Work 1982 By Drinking Ever Caused Problems at Work 1983

	Drinking Ever Caused Problems At Work, 1983			
Drinking Ever Caused Problems At Work, 1982	NO	YES	%	N
No	96.9	3.1	97.5	10356
Yes	63.9	36.1	2.5	261
N	10214	403		10617
Column Total	96.1	3.9		100.0

alcohol by 1983. Some of these youth probably tried alcohol for the first time in the intervening year, but the results for the 1982 drinkers suggests that a substantial part of the apparent shift is due to differential recollection between the years.

As noted, twenty percent of youth who denied ever having had alcohol in 1983 had already stated in 1982 that they had had a drink. Assuming that these youth had no special reason to distort their answers (a tenable hypothesis given that they had already disclosed drinking behavior once before), it is plausible that most of this twenty percent can be attributed to memory-based response error. If we estimate that about one fifth of those who report never having had alcohol are in error due to forgetting, it follows that about one half of the respondents who switched from "never had a drink" in 1982 to "ever had a drink" in 1983 should be due to memory error. Presumably, the remaining youth had actually had their first drink in the intervening year.

Tables 2 and 3 show much the same pattern. The vast majority of youth deny ever having had problems in school or at work due to drinking, and most deny problems consistently. However, among those who admit a school problem one year, only about half are consistent over time, and among those who admit a problem at work in 1982, only a third report a problem on the next interview.

Many studies look at the age of onset of drinking as a measure of alcohol consumption. Both the 1982 and 1983 interviews ask youth to report how old they were when they started drinking. In 1983, the question included a further specification, defining drinking as once or twice a week. In 1982, the probe was added only if the respondent asked for clarification. Without the specification, it would be logical for respondents to report their first taste

of alcohol, whether or not this coincided with regular alcohol use. Thus, we expect that the age of onset reported in 1982 should be equal to or younger than the age reported in 1983.

Table 4 shows the comparison of the two reports, categorized by whether the two reports matched within one year (allowing for "rounding" error on the part of the respondent), were logically consistent, with the age reported in 1983 older than the age reported in 1982, or logically inconsistent, with the age reported in 1983 younger than the supposedly less restricted 1982 report. The distribution is broken down further by the age of onset reported in 1982. As expected, for most respondents the 1983 age of onset was equal to or older than the 1982 age. Overall, only four percent of the responses are inconsistent. On average, youth reporting a very young age of onset in 1982 reported in 1983 that they started drinking regularly six years later. The number of exact matches is quite small for youth reporting 1982 age of onset under the 16 years. The proportion of inconsistent responses increases with initial reported age of onset, until, at the very oldest age range, most of the 1983 responses are inconsistent. It is not clear why those who started drinking at later ages (and, by the distribution of ages in the sample, those who started drinking recently) are more likely to respond in this way, however, the number of respondents in these categories is very small.

In summary, most youth have at least tried alcohol, but very few report that drinking has ever caused them a problem at school or at work. However, reports are not completely consistent over time among those denying drinking or reporting problems. Several reasons have been advanced for the lack of consistency in these groups. Most notably, the questions require review of the entire life span, a considerable feat of memory.

Table 4. Consistency of Age Started Drinking 1982-1983 By Age Started Drinking 1982

	Consistency 1982-1983 (Row Percent Distributions)				
	Match	Inconsistent	Consistent	Mean Difference, 1982-1983	Row Total
Age Started Drinking, 1982					
1-12	10.7	.8	88.5	253	6.00 3.9
13-14	24.3	1.4	74.4	703	2.71 11.6
15-16	35.2	1.5	63.4	2150	1.94 36.1
17	67.4	2.8	29.8	1156	1.13 18.1
18	67.5	3.0	29.5	1336	.90 22.1
19	65.3	8.2	26.5	335	.33 4.3
20	59.2	18.1	22.7	151	.32 2.0
21	64.9	18.5	16.6	99	-.14 1.4
22-25	32.9	50.9	16.2	32	-1.23 .3
N	3014	221	2980	6215	6215
Column Total	48.1	3.0	48.8	100.0	

Chi-Square=1250.775 DF=16 P=.000

Difference scores calculated only for respondents who reported an age of onset for both 1982 and 1983.

For those who reported never having started in 1982, the mean age reported in 1983 was 18.10.

While the reports of alcohol use are not perfectly reliable, they do show considerable consistency. Most of the measures to be reported below refer to alcohol consumption within a fairly short, defined period--the 30 days prior to the interview date. Memory problems should be less of a problem under such circumstances. Previous work on self-reports of alcohol and drug use show that, although there is some concealment among the very heavy users, the data resulting from self-reports is adequate for most research purposes (Radosevich, 1979).

CONSISTENCY OF ALCOHOL USE, 1982-1983

Tables 5 and 6 give a brief summary of the consistency of drinking reports between 1982 and 1983. These tables focus on drinking patterns within the past seven days, since the questions were repeated both years.

The correlations between the quantities and frequency of alcohol consumption across years are shown in Table 5. The first column of correlations is for the total sample, the second column is restricted to youth who drank at least once in the past week, each year. In general, the correlations are moderate, although quite significant. There is a great deal of variation from one year to the next in the frequency and quantity consumed.

Since drunkeness is seen as a more serious problem than light drinking, several questions on the interview are focussed on identifying youth who drink heavily. Each year, the interview includes a question concerning the number of times the youth drank six or more drinks on one occasion in the past 30 days. In 1983, a similar question concerning the number of times six or more drinks were consumed on one day was embedded in detailed probes of drinking during the past month. Note that one day may include more than one occasion of drinking, so the questions are not completely redundant. The correlation

Table 5. Correlations between Selected Drinking Variables, 1982-1983

Variable 1	Variable 2	Correlation, Total Sample	Correlation, Drinkers Only
Number of drinks last week, 1982	Number of drinks last week, 1983	.50 (11895)	.45 (4426)
Number of days drank in last week, 1982	Number of days drank in last week, 1983	.55 (11936)	.43 (4477)
Number of times drank 6 or more drinks on one occasion in last month, 1982	Number of times drank 6 or more drinks on one occasion in last month, 1983	.56 (6536)	.42 (3207)
Number of times drank 6 or more drinks on one occasion in last month, 1982	Number of times drank 6 or more drinks in last month, 1983	.43 (6537)	.37 (2248)
Number of times drank 6 or more drinks on one occasion in last month, 1983	Number of days drank 6 or more drinks in last month, 1983	.71 (8047)	.75 (3091)

Correlations are based on weighted data.
N-sizes are in parentheses and are unweighted.

between the two items for the total sample, is .71, indicating that, despite the apparent equivalency of the two questions, a number of respondents give different responses to each. The correlations between reports of heavy drinking in 1982 and 1983 are the same order of magnitude as the correlations between overall quantities and frequencies of drinking across the years. This suggests that heavy drinking is no more likely to persist over time than are more moderate levels of consumption.

Youth who drank within the past week were asked to estimate separately how many drinks of beer, wine, and liquor they had consumed during that period. Table 6 shows the patterns of beverage choice for 1983 by beverage choice for 1982 among youth who reported drinking in both years.

Most drinking youth drink beer. Over 80 percent reported drinking beer, and half of these drank beer exclusively. Wine is the least frequently reported beverage of choice. The most common combination of beverages by far is beer and liquor, with about a quarter of the sample reporting this mix. The marginal distribution of beverage choice is quite similar for the two years. However, the full table shows that these choices are not terribly stable, except for the "pure" beer drinkers. The cells on the diagonal of the table indicate the youth who made the same selection of beverages in both years. Except for the beer only group, all of the marginals are well below 50%, indicating that more youth in each category change than repeat their beverage choices. However, these changes do not appear to be entirely random. Youth who were wine drinkers in 1982 are less likely than other youth to report drinking beer in 1983. When 1982 beer drinkers may change their patterns, they are likely to consume liquor, usually in addition to beer.

Table 6. Crosstabulation of Beverage Choice 1982 By Beverage Choice 1983

	Beverage Choice 1983								
Beverage Choice 1982	Beer Only	Wine Only	Liquor Only	Beer and Wine	Beer and Liquor	Wine and Liquor	Beer, Wine and Liquor	%	N
Beer Only	58.4	2.3	6.8	5.3	21.3	1.2	4.7	37.9	732
Wine Only	21.9	28.6	15.1	5.3	11.5	10.9	6.7	5.4	210
Liquor Only	20.2	9.0	38.0	3.9	15.2	7.6	6.2	10.0	431
Beer and Wine	35.0	8.7	6.1	11.0	26.2	2.4	10.5	6.8	302
Beer and Liquor	34.4	2.8	7.2	5.6	37.9	2.7	9.4	26.4	1146
Wine and Liquor	11.6	21.3	17.3	9.2	11.1	19.4	10.1	4.9	206
Beer, Wine & Liquor	16.4	5.0	6.3	13.8	29.8	6.4	22.3	8.7	399
N	1791	257	501	285	1077	177	338	4426	
Column Total	38.8	6.1	10.9	6.5	25.1	4.2	8.4	100.0	

MEASURING LEVELS OF ALCOHOL CONSUMPTION

Since the earliest of the national epidemiological studies of alcohol use, researchers have realized that measures of simple quantity of alcohol consumed do not reflect the complexity of drinking behavior. Cahalan, et al. (1969), in what is still the basic reference on patterns of drinking, differentiated three dimensions of alcohol consumption: quantity, frequency, and variability. None of these are totally independent indices; individuals who drink more often are likely to consume more total alcohol than less frequent drinkers, regardless of daily consumption levels. Variability is related to frequency and to quantity, since respondents who have few drinking episodes or few total drinks have little occasion for varying their drinking patterns. Nevertheless, it is assumed that the implications for problem drinking are different for persons who drink a given quantity of alcohol, consuming large amounts on a few days, than for persons who drink the same total quantity, but report no more than two drinks on any one occasion.

In 1983, the questions concerning alcohol use allowed a direct assessment of the quantity, frequency, and variability of drinking behavior within the recent past 30 days. Respondents were asked on how many days they had drunk alcohol in the past 30 days. They were then asked to report on how many days they had consumed one drink, how many days they had consumed two drinks, and so on up to six or more drinks in one day. The sum of the number of days for each amount of drinking was reconciled with the reported total frequency of drinking, with estimates raised or lowered until the two reports tallied.

After inspection of frequencies and crosstabulations, respondents were classified by total number of days they drank, and by the number of days each quantity was reported consumed. Since the number of possible categories using the full range of 1 through 30 days for each level of 1 through 6 drinks is enormous, initial classifications were established for quantity and frequency.

Frequency categories were defined as infrequent, less than once a week (1 to 2 days of the last 30); occasional, once or twice a week (3 to 9 days of the last 30); or frequent, three or more times a week (10 or more days of the last 30). Level of drinking categories for each drinking day were also defined. Days when two or fewer drinks were consumed were classed as light, days when three or four drinks were consumed were classified as moderate, and days when five or more drinks were consumed were classified as heavy. Using these simplifications, the following ten categories of drinkers were defined:

1. Nondrinkers: Youth who did not drink at all in the past 30 days.
2. Infrequent Light Drinkers: Youth who drank less than once per week, and who reported no more than two drinks on any occasion.
3. Infrequent Moderate to Heavy Drinkers: Youth who drank less than once per week who reported three or more drinks on one or more occasions.
4. Occasional to Frequent Light Drinkers: Youth who drank once or twice per week and who drank more than two drinks no more than once during the last 30 days, plus youth who drank more than twice per week, and who drank more than two drinks on two or fewer days.
5. Occasional Moderate Drinkers: Youth who drank once or twice per week, who consumed three to four drinks on at least two occasions and drank five or more drinks no more than twice.
6. Occasional Heavy Drinkers: Youth who drank once or twice per week. Among those who drank 3 to 4 days (once a week), drank 5 or more drinks on at least three days. Among those who drank 5 to 9 days, drank 5 or more drinks at least 4 of those days.
7. Irregular: Youth who drank once or more per week and who did not fall into any of the other "occasional" or "frequent" categories.

3. Frequent Heavy Drinkers: Youth who drank more than twice per week and who drank five or more drinks on four or more days.

Note that the categories hinge more on quantity and frequency than on variability. The classes were created with the recognition that drinking often depends on situations. Many social events are marked by high levels of drinking which may be exceptional in terms of the general drinking pattern of the individual. Hence, for those who drank more frequently, the criteria for light or moderate drinking were relaxed to allow for such events. Categories thus correspond to the amount usually consumed during the past month, with allowance for some variability. The "irregular" category consists of youth who drink occasionally or frequently but who do report a highly variable quantity across occasions.

DESCRIPTIONS OF DRINKING PATTERNS

As noted above, few studies are available of non-student populations of young adults. The following section provides simple two way crosstabulations, describing variations in drinking patterns by major demographic categories. It is important to keep in mind that most of these characteristics are interrelated, so that apparent differences may be to some extent spurious. Notably, race, income, education, poverty, and religious background are all strongly associated. All tables are presented separately for males and females, to allow assessment of variations due to differing norms about appropriateness of drinking for men than for women among various subgroups of the population.

The tables below show four indicators of alcohol consumption. The first is the Alcohol Consumption Pattern variable described above. This variable

includes non-drinkers. The other indicators, mean number of days drinking in the past thirty days, mean total number of drinks consumed in the past thirty days, and mean drinks per day when alcohol was consumed, are calculated only for youth who reported drinking at least once during that period. Plausibly, drinking may be part of a two stage process, with the decision of whether to drink at all being qualitatively different from the decisions about how often and how much to drink. For many of the tables presented below, the largest variations within the table will be found in the relative proportions of abstainers across categories. The quantity indicators summarize variations in drinking patterns among those who have decided to drink.

Variations in Drinking Patterns by Demographic Characteristics

Sex. Table 7 shows the patterns of alcohol consumption by sex. The general distribution of drinking patterns among youth is contained in the marginal distributions. About three out of ten youth report not drinking at all in the past month. Among the drinkers, another 17 percent drank no more than twice in the last month, about equally split between light drinkers and non-light drinkers. For youth who drank once a week or more, the categories also split into approximately equal proportions of heavy drinkers, moderate or irregular drinkers, and light drinkers. The ordering of categories in the table is roughly in order of the quantity of alcohol consumed.

The table makes clear the large differences in alcohol consumption by sex. Males are more likely to drink, to drink more often, and to drink more drinks per occasion. The largest discrepancies between men and women is in the frequent heavy drinker category. Men are three times more likely than women to report drinking heavily at least twice a week. These differences are summarized in the quantity measures. On average, men drink almost twice as

Table 7. Alcohol Consumption Patterns By Sex

Alcohol Consumption Patterns
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Sex									
Male	21.8	7.0	6.9	14.8	10.9	7.2	14.5	16.9	6129 50.8
Female	36.8	12.4	8.4	17.3	10.4	3.4	6.8	4.5	6066 49.2
N	4141	1281	929	1817	1177	583	1164	1103	12195
Column Total	29.2	9.6	7.6	16.0	10.6	5.3	10.7	10.8	100.0

Chi-Square=1029.250 DF=7 P=.000

Quantity Indicators[a]

Sex / Alcohol Consumption Pattern	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Male	9.04	30.63	3.27
Non-Drinkers	0.00	0.00	0.00
Infrequent Light	1.49	2.07	1.38
Infrequent Nonlight	1.61	6.71	4.28
Light	7.69	12.31	1.70
Occasional Moderate	5.22	16.32	3.15
Occasional Heavy	5.90	31.75	5.45
Irregular	11.92	32.80	3.02
Frequent Heavy	17.62	74.74	4.33
Female	5.56	16.17	2.71
Non-drinkers	0.00	0.00	0.00
Infrequent light	1.50	2.08	1.38
Infrequent nonlight	1.54	5.93	3.99
Light	5.98	5.93	1.73
Occasional Moderate	5.17	9.94	3.10
Occasional Heavy	5.99	30.92	5.27
Irregular	9.90	27.90	3.12
Frequent Heavy	16.81	70.29	4.27
N		8054	

[a]Universe: Respondents who reported consuming alcohol at least once in the last 30 days.

often as women. The difference in drinks per day is smaller but still substantial.

Table 7 also shows the quantity indicators for the various alcohol categories. The variation in total quantity and frequency is expected, given the classification rules. Note that irregular drinkers have about the same average consumption per drinking day as do occasional moderate drinkers. However, irregular drinkers have a very high frequency of alcohol use, so their total consumption is much higher than that of the moderate drinkers. These means provide a comparison level for interpreting the results presented below.

Age. Tables 8 and 9 show the patterns of drinking by age as of the interview date.[2] Overall, the proportions are quite similar for males and females. In 1983, the age of the members of the NLS panel ranged from 18 to 26. The tables collapse age 25 and 26, since few youth have had their 26th birthday between January 1, 1983 and the date of their interview.

The age range of the panel covers the period when drinking becomes legal. Focusing on the distribution for males, the proportion of non-drinkers falls rapidly from 31.4 percent for 18 year olds to 20.3 percent for the 21 year olds. Past age 20, the percentage of non-drinkers in the male population remains stable at around 20 percent. Note that even among the youngest age group a majority of youth drink, many of them quite frequently. Among the drinkers, the 18 year olds drank 7 days out of the last 30, on average. The

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[2]Note that using the interview date to determine age affects the age distribution somewhat. The NLS sampling frame determined whether a youth was eligible for the study based on age as of January 1, 1979. Each year, the interviews are collected between January and April, and respondents may have celebrated their birthday before their interview. In 1983, the number of youth aged 18 is reduced from its expected value of 12.5% to 9.6%. At the same time, a roughly comparable number of youth who were 25 on January 1 turned 26 before they were interviewed. These 26 year olds were combined with the 25 year olds for purposes of this analysis.

Table 8. Alcohol Consumption Patterns by Age Among Males

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Age									
18	31.4	8.1	8.6	8.6	10.0	10.1	10.4	12.7	523 9.6
19	25.1	6.8	8.5	11.0	11.5	8.5	11.5	17.0	773 12.9
20	20.7	7.1	8.6	12.8	8.7	6.7	16.1	19.2	762 12.0
21	20.3	8.3	6.8	14.7	11.9	6.7	13.8	17.5	755 12.9
22	19.4	7.2	4.0	15.8	11.8	6.6	15.5	19.6	772 12.1
23	20.0	4.9	4.9	19.7	10.8	5.9	16.8	17.0	820 13.1
24	18.5	7.0	6.8	17.5	12.7	6.3	15.0	16.2	797 12.5
25-26	21.3	6.7	7.1	16.6	9.5	7.2	15.9	15.7	927 14.9
N	1583	467	448	884	638	414	799	896	6129
Column Total	21.8	7.0	6.9	14.8	10.9	7.2	14.5	16.9	100.0

Chi-Square=157.374 DF=49 P=.000

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Age			
18	6.99	25.71	3.49
19	8.35	31.18	3.54
20	9.08	31.46	3.40
21	9.08	30.88	3.20
22	9.12	31.96	3.28
23	9.39	31.07	3.14
24	9.64	30.65	3.11
25-26	9.77	30.53	3.09
N		4546	

[a]Universe: Males interviewed in 1983.

[b]Universe: Males who reported drinking on at least one day out of the last 30, 1983 interview.

average frequency of drinking increases to 9 for youth age 20, and gradually increases to just under ten days out of the past 30 for the oldest members of the sample. The average number of drinks stabilizes even earlier than the frequency of drinking. Indeed, there is even a downward trend in the drinks per day declines after age 19.

The alcohol consumption patterns show a tendency for men under the age of 22 to drink heavily when they do drink. Eighteen and nineteen year olds are more likely than other youth to fall in the infrequent non-light and occasional heavy categories. The distribution of frequent heavy drinkers is curvilinear, peaking between the ages of 20 and 22, and declining afterwards. Older respondents, age 23 and older, tend to fall into the occasional to frequent categories, but to predominately consume four or fewer drinks per day. In particular, these older members of the panel tend to report drinking only one or two drinks per day.

The overall impression gathered from the pattern of drinking for the young men is a process of initiation, with more and more men drinking over the course of young adulthood, entering a period of experimentation characterized by heavy drinking episodes, and gradually settling in to regular but moderate use of alcohol.[3]

The alcohol consumption patterns of young women show roughly similar age trends as the patterns for young men, although the variation seems less pronounced in general and the process seems to start a year later for the women than for the men. Over two fifths of the women are non-drinkers at age 18 and

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[3]Of course, there are pitfalls in infering developmental sequences from cross-sectional data. However, the restricted age range argues against major cohort effects, and the process of initial experimentation followed by integration is consistent with other socialization approaches (c.f. Radosevich, et al., 1980, Potvin and Lee, 1980).

Table 9. Alcohol Consumption Patterns by Age Among Females

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

Age	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
18	41.7	10.8	11.0	12.0	12.3	2.9	6.2	3.1	473 9.3
19	41.2	9.7	6.9	12.0	13.1	3.1	7.0	7.0	750 12.9
20	37.9	12.5	8.4	16.0	13.4	4.0	4.4	3.4	742 12.0
21	32.5	11.1	8.9	17.9	9.1	5.2	9.9	5.4	754 12.7
22	33.8	11.5	7.8	20.2	10.8	4.8	7.0	4.2	784 12.6
23	35.6	13.3	8.8	18.1	8.8	2.2	8.4	4.7	844 12.9
24	32.5	13.1	8.7	23.3	9.1	3.2	6.0	4.0	779 12.5
25-26	40.0	15.8	7.7	17.5	8.0	2.2	5.1	3.7	939 15.0
N	2557	814	481	933	539	169	365	207	6065
Column Total	36.8	12.4	8.4	17.3	10.4	3.4	6.8	4.5	100.0

Chi-Square=136.669 DF=49 P=.000

Quantity Indicators[b]

Age	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
18	4.95	15.39	2.86
19	5.58	18.96	2.97
20	5.24	14.87	2.69
21	5.65	16.68	2.83
22	5.77	16.87	2.75
23	5.82	16.83	2.61
24	6.15	15.96	2.59
25-26	5.12	13.83	2.47
N		3508	

[a]Universe: Females interviewed in 1983.

[b]Universe: Females who reported drinking on at least one day out of the last 30, 1983 interview.

19. By age 21, the proportion of non-drinkers falls to about one third, with a sharp increase in the proportion of non-drinkers among the very oldest group. This increase in abstainers does not occur (at least, not as sharply) for the men. The quantitative measures show that, among the drinkers, there is a slow increase in the number of days on which alcohol is consumed up through the age of 24, with a drop of almost a full day in the average number of drinking days between age 25 and age 25/26. Age 19 seems to be a peak drinking age for young women, both in terms of frequency and quantity.

Race. Tables 10 and 11 show the patterns of drinking separately for Hispanics, blacks, and whites.[4] Clearly, whites are more likely to drink than are minorities, and blacks are substantially less likely to drink than are either whites or Hispanics. Among those who drink, Hispanics report the lowest frequency, while blacks report the lowest total quantity of alcohol and the lowest number of drinks per occasion.

The alcohol consumption patterns show that Hispanic males are more likely to drink occasionally or infrequently than other groups, but to drink heavily on those occasions. Whites are particularly heavily overrepresented in the frequent heavy drinker and irregular drinker categories. Those black men who do drink tend to be in the light drinking categories. Relative to the other ethnic groups, blacks are very unlikely to report heavy drinking.

The patterns for women also show that drinking is predominately a white activity. However, unlike the pattern for men, Hispanic women are even less likely than black women to drink heavily. Fewer than half of the Black women had any alcohol in the past month, and most of those who drank drank lightly.

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[4]Actually, the group labelled whites includes all respondents who are not classified as blacks or Hispanics, so a few members of other races are also represented in the calculations. The overwhelming majority in the "other" category are white.

Table 10. Alcohol Consumption Patterns by Race Among Males

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

Race	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Hispanic	29.3	7.4	9.7	10.3	10.3	10.8	10.8	11.5	941 6.3
Black	36.5	9.6	6.2	18.4	9.0	2.2	11.4	6.7	1535 13.7
White	18.7	6.5	6.7	14.6	11.2	7.8	15.4	19.1	3653 80.0
N	1583	467	448	884	638	414	799	896	6129
Column Total	21.8	7.0	6.9	14.8	10.9	7.2	14.5	16.9	100.0

Chi-Square=320.938 DF=14 P=.000

Quantity Indicators[b]

Race	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Hispanic	7.52	26.74	3.51
Black	8.00	22.71	2.64
White	9.28	31.95	3.33
N		4546	

[a]Universe: Males interviewed in 1983.

[b]Universe: Males who reported drinking on at least one day out of the last 30, 1983 interview.

Table 11. Alcohol Consumption Patterns by Race Among Females

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Race									
Hispanic	49.3	15.2	9.9	11.2	7.4	2.2	4.2	.7	962 6.3
Black	55.2	16.0	4.0	14.6	5.4	.8	2.9	1.2	1523 14.1
White	32.6	11.5	9.1	18.2	11.6	4.0	7.6	5.3	3581 79.6
N	2553	814	481	933	539	169	365	207	6066
Column Total	36.8	12.4	8.4	17.3	10.4	3.4	6.8	4.5	100.0

Chi-Square=371.124 DF=14 P=.000

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Race			
Hispanic	3.84	10.12	2.56
Black	4.51	10.33	2.04
White	5.79	17.22	2.79
N		3508	

[a]Universe: Females interviewed in 1983.

[b]Universe: Females who reported drinking on at least one day out of the last 30, 1983 interview.

Socioeconomic Indicators and Alcohol Consumption

Poverty Status. Tables 12 and 13 show the distributions of alcohol consumption for youth whose family income fell below OMB poverty levels relative to non-poor youth. It is tempting to say that the table shows an income effect: youth with more money drink more. Poor youth are more likely to be non-drinkers or infrequent light drinkers. They do have a higher rate of occasional heavy drinking than do the non-poor, but this is the only category in which they outscore their more affluent counterparts.

Poor women are less likely to drink at all than non-poor women, repeating the finding for men. However, among women who reported drinking in the past month, the poor drink more heavily and more often. Women in poverty are about one third more likely than other women to be in the occasional heavy and frequent heavy drinking categories. Given that minorities, who tend to have very low levels of alcohol consumption, are overrepresented among the poor, this pattern is contrary to expectations.

Enrollment Status and Educational Attainment. Most (indeed, virtually all non-clinical) studies of drinking among young people have been done using in-school populations. The NLS allows comparisons of students and non-students in a general population.

Among the young men, high school students are predominately very young, and as expected they are less likely to drink than are other youth (Table 15). While they drink on average half as often as do other youth, they have a very high average number of drinks per day. College students drink more often than high school students, but less often than any of the non-student categories. Relative to high school students, also, college students report lower quantities per day, in contradiction to the animal house image of college men. While about one in eight college men are in the frequent heavy drinker

Table 12. Alcohol Consumption Patterns by Poverty Status Among Males

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Poverty Status									
Not in Poverty	20.4	6.9	6.7	15.1	11.5	7.1	14.7	17.6	4497 84.0
In Poverty	28.2	7.7	6.3	14.1	8.5	7.7	14.6	12.7	1233 16.0
N	1460	437	411	834	602	387	763	836	5730
Column Total	21.6	7.0	6.7	15.0	11.0	7.2	14.7	16.9	100.0

Chi-Square=87.026 DF=7 P=.000

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Poverty Status			
Not in Poverty	9.13	30.86	3.26
In Poverty	8.61	28.74	3.22
N		4270	

[a]Universe: Males interviewed in 1983.

[b]Universe: Males who reported drinking on at least one day out of the last 30, 1983 interview.

Table 13. Alcohol Consumption Patterns by Poverty Status Among Females

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Poverty Status									
Not in Poverty	34.6	12.6	8.8	19.0	10.7	2.9	7.3	4.2	4102 80.2
In Poverty	43.1	11.6	7.5	13.8	8.9	4.2	4.8	6.0	1465 19.8
N	2305	747	446	892	494	147	341	195	5567
Column Total	36.3	12.4	8.5	17.9	10.4	3.2	6.8	4.5	100.0

Chi-Square=79.761 DF=7 P=.000

Quantity Indicators[b]

Poverty Status	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Not in Poverty	5.58	15.65	2.65
In Poverty	5.65	18.13	2.86
N		3262	

[a]Universe: Females interviewed in 1983.

[b]Universe: Females who reported drinking on at least one day out of the last 30, 1983 interview.

Table 14. Alcohol Consumption Patterns By Enrollment Status and Education Among Males

(Alcohol Consumption Patterns)
(Row Percent Distributions)

Enrollment Status and Education	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
High School Dropout	26.3	5.7	7.6	11.4	9.1	10.9	10.7	18.3	1230 15.5
High School Graduate	20.6	7.3	7.9	13.9	10.7	7.5	14.0	18.1	2654 42.1
Some College	18.1	8.6	2.2	16.8	11.6	3.9	21.2	17.7	565 9.6
College Graduate or Greater	11.9	6.7	5.2	24.5	12.2	1.4	21.5	16.6	285 6.6
High School Student	40.4	9.2	10.5	8.8	10.8	10.8	5.8	3.6	240 3.9
College Student	21.7	6.3	6.4	16.3	11.8	6.7	14.8	15.9	1124 22.4
N	1568	466	447	878	637	414	795	893	6098
Column Total	21.7	7.0	6.9	14.8	10.9	7.2	14.5	16.9	100.0

Chi-Square=260.519 DF=35 P=.000

Quantity Indicators[b]

Enrollment Status and Education	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
High School Dropout	9.23	34.66	3.66
High School Graduate	9.28	32.10	3.34
Some College	10.30	32.54	2.95
College Graduate or Greater	9.09	24.89	2.64
High School Student	4.97	18.19	3.56
College Student	8.39	27.87	3.17
N		4530	

[a]Universe: Males interviewed in 1983.

[b]Universe: Males who reported drinking on at least one day out of the last 30, 1983 interview.

Table 15. Alcohol Consumption Patterns By Enrollment Status and Education Among Females

(Alcohol Consumption Patterns)
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Enrollment Status and Education									
High School Dropout	51.0	11.1	9.5	8.3	6.1	5.5	4.0	4.4	1051 13.1
High School Graduate	39.4	12.0	10.6	10.5	9.2	3.4	7.1	4.0	2583 42.5
Some College	32.1	14.7	7.9	22.9	8.6	2.1	7.4	4.2	782 13.3
College Graduate or Greater	24.0	14.3	3.7	32.1	12.9	.7	7.6	4.7	377 7.6
High School Student	66.5	10.7	6.3	4.6	9.2	1.6	1.2	0.0	131 1.9
College Student	28.0	11.9	6.0	20.6	15.7	4.1	7.7	6.0	1110 21.6
N	2543	811	479	926	537	168	364	206	6034
Column Total	36.9	12.4	8.4	17.2	10.4	3.4	6.8	4.5	100.0

Chi-Square=343.804 DF=35 P=.000

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Enrollment Status and Education			
High School Dropout	5.28	18.44	3.13
High School Graduate	5.14	15.42	2.84
Some College	6.14	16.08	2.40
College Graduate and Up	6.56	15.59	2.22
High School Student	3.90	11.01	2.59
College Student	5.77	17.04	2.69
N		3491	

[a]Universe: Females interviewed in 1983.

[b]Universe: Females who reported drinking on at least one day out of the last 30, 1983 interview.

category, this proportion is smaller than the proportion reported by any of the non-student groups.

Among the out of school youth, the more educated groups are less likely to be non-drinkers. Almost ninety percent of the college graduates drink, compared to 74 percent of the high school graduates. Frequency of drinking is curviilinearly related to education--youth who attended college and left before receiving a baccalaureate drink more often than other groups. Higher levels of education are associated with lower daily consumption levels. While many high school dropouts abstain, almost two fifths of the dropouts are either frequent heavy or occasional heavy drinkers. Among those who drink, dropouts have the highest drinking rate.

The relationship between education and drinking is somewhat different for women than for men (Table 16). Young women in high school do not show the binging pattern demonstrated by the young men. Only about one third of the high school enrollees reported drinking at all in the past month. Among young women, the college students are most likely to be frequent heavy drinkers.

Similar to male dropouts, female high school dropouts have both a high proportion of non-drinkers and a high proportion of heavy drinkers. In contrast to high school dropouts, women with higher levels of education tend to drink often but in moderation. College graduates have both the highest average frequency and the lowest average quantity of all educational groups.

Family Background and Alcohol Use

Broken homes. Many forms of deviance and uncontrolled behavior have been popularly said to be encouraged by family break-ups. Table 16 shows the drinking patterns of young men according to whether, at age 14, they were living with both parents, with their mother only, or in some other arrangement.

Table 16. Alcohol Consumption Patterns by Family Intactness at Age 14 Among Males

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Family Intactness									
Both Parents	21.0	6.9	7.0	15.0	11.1	7.2	14.7	17.2	4686 83.2
Mother Only	25.9	7.6	5.4	14.5	10.4	6.8	13.2	16.1	1099 12.5
Other	26.4	6.5	7.5	13.5	8.3	7.6	14.5	15.7	335 4.4
N	1581	467	447	883	638	412	796	896	6120
Column Total	21.8	7.0	6.8	14.9	10.9	7.2	14.5	17.0	100.0

Chi-Square=21.589 DF=14 P=.088

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Family Intactness			
Both Parents	9.00	30.50	3.26
Mother Only	9.37	31.55	3.24
Other	8.78	30.61	3.37
N		4539	

[a]Universe: Males interviewed in 1983.

[b]Universe: Males who reported drinking on at least one day out of the last 30, 1983 interview.

Table 17. Alcohol Consumption Patterns by Family Intactness at Age 14 Among Females

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Family Intactness									
Both Parents	35.0	12.1	8.7	17.9	11.2	3.6	6.9	4.6	4580 82.4
Mother Only	44.3	13.9	6.3	15.5	6.7	2.7	6.9	3.7	1140 13.4
Other	48.8	12.1	9.7	11.7	7.8	2.2	3.5	4.1	337 4.2
N	2552	812	481	933	538	169	365	207	6057
Column Total	36.8	12.3	8.4	17.3	10.4	3.4	6.8	4.5	100.0

Chi-Square=59.642 DF=14 P=.000

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Family Intactness			
Both Parents	5.58	16.26	2.73
Mother Only	5.49	15.60	2.53
Other	5.61	16.23	2.82
N		3505	

[a]Universe: Females interviewed in 1983.

[b]Universe: Females who reported drinking on at least one day out of the last 30, 1983 interview.

Given the large sample size, it is worth noting that the chi square statistic between the two variables does not reach significance.

The chi square for the young women is larger, but small relative to most other relationships (Table 17). The direction of the relationship between family intactness and alcohol consumption is counter to expectations, with women from intact families consuming more alcohol more regularly and in somewhat larger quantity than women from other family types.

Religious Background. Alcohol use is a function of social norms, and such norms are expected to be associated with religious upbringing. Tables 18 and 19 break down the sample by their religious affiliation during adolescence.[5] There are strong religious influences, largely in expected directions. Fundamentalists either abstain from drinking or tend to drink infrequently, relative to other denominations. Liberal or mainstream protestants (Episcopalians, Presbyterians, etc.) are very likely to drink, but tend not to drink large quantities on a single day. Consistent with stereotype, Catholic men tend to drink often and heavily. Over one fifth are classified as frequent heavy drinkers, with another tenth in the occasional heavy category. Being brought up outside religion does not seem to lead to lack of control over alcohol consumption; in fact, those reporting no religion or unknown religion are less likely than anyone except fundamentalists to be frequent heavy drinkers.

Among women, Catholics are less likely than non-fundamentalist protestants to be frequent heavy drinkers, although they are overrepresented among other heavy drinking categories, giving them the highest average drinking rate of any religious group. Indeed, among those who drink the non-fundamentalist

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[5]Categories were established using a modification of the National Opinion Research Corporation's religious coding (Chi, 1982).

Table 18. Alcohol Consumption Patterns by Religion Raised in at Age 14 Among Males

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

Religion at Age 14	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Fundamentalist Protestant	33.9	8.3	8.7	13.3	9.5	5.2	10.3	10.9	2171 29.0
Other Protestant	21.7	7.0	6.7	13.6	10.2	7.9	14.9	18.1	762 15.5
Liberal Protestant	16.6	8.5	5.4	17.4	13.3	5.3	15.9	17.7	772 16.0
Catholic	14.5	4.7	6.6	14.5	11.4	9.0	17.5	21.9	2025 32.9
Other	8.1	10.5	6.0	31.9	7.7	8.0	13.4	14.4	73 1.7
None or Don't Know	22.0	8.4	3.3	16.4	10.9	10.6	14.6	13.8	326 4.9
N	1583	467	448	884	638	414	799	896	6129
Column Total	21.8	7.0	6.9	14.8	10.9	7.2	14.5	16.9	100.0

Chi-Square=284.570 DF=35 P=.000

Quantity Indicators[b]

Religion at Age 14	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Fundamentalist Protestant	7.87	26.06	3.16
Other Protestant	8.58	30.35	3.36
Liberal Protestant	9.83	31.36	3.02
Catholic	9.69	33.94	3.45
Other	7.63	23.05	2.79
None or Don't Know	9.28	30.48	3.17
N		4546	

[a]Universe: Males interviewed in 1983.

[b]Universe: Males who reported drinking on at least one day out of the last 30, 1983 interview.

Table 19. Alcohol Consumption Patterns by Religion Raised in at Age 14 Among Females

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Religion at Age 14									
Fundamentalist Protestant	52.2	11.7	7.7	13.9	4.9	2.0	4.7	2.9	2220 32.1
Other Protestant	33.0	13.1	6.3	17.8	10.3	4.1	9.6	5.7	636 13.4
Liberal Protestant	28.9	12.5	9.9	20.6	11.8	2.3	6.7	7.2	835 16.9
Catholic	27.6	12.7	9.5	18.3	14.6	5.0	7.8	4.6	2069 32.2
Other	21.0	13.8	2.7	33.5	16.4	3.0	6.9	2.5	72 1.6
None or Don't Know	40.5	11.5	9.0	14.2	12.9	5.4	5.3	1.2	234 3.7
N	2558	814	481	933	539	169	365	207	6066
Column Total	36.8	12.4	8.4	17.3	10.4	3.4	6.8	4.5	100.0

Chi-Square=317.970 DF=35 P=.000

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Religion at Age 14			
Fundamentalist Protestant	5.20	14.48	2.55
Other Protestant	5.84	18.00	2.78
Liberal Protestant	5.93	17.35	2.66
Catholic	5.53	16.26	2.83
Other	5.83	14.15	2.26
None or Don't Know	5.19	14.24	2.77
N		3508	

[a]Universe: Females interviewed in 1983.

[b]Universe: Females who reported drinking on at least one day out of the last 30, 1983 interview.

protestants are the most frequent drinkers. As with the men, the non-religious have relatively low levels of alcohol consumption.

Parental Education. One of the few measures of family context included in the NLS is the level of education of the parents of the youth in the sample. Parental education is a frequently used measure of socioeconomic background. The cross-tabular results in Tables 20 through 21 show a consistent pattern of higher levels of drinking among youth whose parents have higher levels of education. Children of high school dropouts have the highest proportion of non-drinkers. Among youth whose parents have at least some college education, the proportions of frequent drinkers, light, heavy, or irregular, are larger than among youth whose parents have less education. Sons of high school dropouts are overrepresented among the infrequent nonlight and occasional heavy drinkers, and the quantity indicators show that they drink less often but more heavily than sons of more educated parents.

Among young women who drink the relationship between drinking levels and parental educations is similar--daughters of more educated parents drink more often but in less quantity than daughters of less educated parents. Daughters of high school dropouts are twice as likely to be non-drinkers as are daughters of college educated parents.

The relationship between drinking and education seems also to be stronger for the same-sex parents. For males, both the chi-square and the apparent magnitudes of variation in drinking patterns are larger for father's education than for mother's education, while the reverse is true for females.

Transition to Adulthood and Alcohol Use

The period from age 18 to age 25 covers the period in which youth make the transition from adolescence to young adulthood. This is the part of the

Table 20. Alcohol Consumption Patterns By Mother's Educational Attainment Among Males

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

Mother's Educational Attainment	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
High School Dropout	28.0	6.3	7.9	13.0	11.0	8.9	12.1	13.0	2331 29.3
High School Graduate	20.0	6.7	6.6	14.7	10.6	7.2	16.0	18.2	2383 48.4
College	17.1	8.5	5.3	18.5	11.0	4.4	15.6	19.6	981 21.8
N	1465	437	412	825	588	378	752	838	5695
Column Total	21.8	7.0	6.7	15.0	10.8	7.1	14.7	16.9	100.0

Chi-Square=126.233 DF=14 Probability=.000

Quantity Indicators[b]

Mother's Educational Attainment	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
High School Dropout	8.21	29.02	3.41
High School Graduate	9.28	31.43	3.29
College	9.53	30.47	3.00
N		4230	

[a] Universe: Males interviewed in 1983.

[b] Universe: Males who reported drinking on at least one day out of the last 30, 1983 interview.

Table 21. Alcohol Consumption Patterns By Mother's Educational Attainment Among Females

Alcohol Consumption Patterns
(Row Percent Distributions)[a]

Mother's Educational Attainment	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
High School Dropout	47.5	13.3	9.2	11.1	8.5	3.6	4.3	2.5	2560 33.9
High School Graduate	33.8	12.1	8.1	17.8	11.0	3.6	8.3	5.1	2258 45.2
College	23.6	12.0	7.7	27.4	12.4	3.3	7.7	6.0	929 20.9
N	2384	783	454	903	513	165	349	196	5747
Column Total	36.3	12.5	8.4	17.5	10.5	3.6	6.8	4.4	100.0

Chi-Square=297.422 DF=14 Probability=.000

Quantity Indicators[b]

Mother's Educational Attainment	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
High School Dropout	4.75	14.29	2.80
High School Graduate	5.62	16.70	2.75
College	6.35	17.02	2.50
N		3363	

[a]Universe: Females interviewed in 1983.

[b]Universe: Females who reported drinking on at least one day out of the last 30, 1983 interview.

Table 22. Alcohol Consumption Patterns By Father's Educational Attainment Among Males

Alcohol Consumption Patterns (Row Percent Distributions)[a]

Father's Educational Attainment	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
High School Dropout	27.9	6.5	7.2	12.3	10.9	9.2	11.8	14.1	2227 32.9
High School Graduate	19.3	6.7	7.7	16.4	10.9	7.7	14.3	16.9	1787 36.0
College	16.2	7.2	5.0	16.2	10.9	4.4	19.2	20.9	1263 31.1
N	1314	398	380	769	552	360	710	794	5277
Column Total	21.2	6.8	6.7	15.0	10.9	7.2	15.0	17.2	100.0

Chi-Square=146.485 DF=14 Probability=.000

Quantity Indicators[b]

Father's Educational Attainment	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
High School Dropout	8.64	30.65	3.44
High School Graduate	8.73	29.83	3.29
College	9.85	31.81	3.09
N		3963	

[a]Universe: Males interviewed in 1983.

[b]Universe: Males who reported drinking on at least one day out of the last 30, 1983 interview.

Table 23. Alcohol Consumption Patterns by Father's Edu tional Attainment Aamong Females

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Father's Educational Attainment									
High School Dropout	45.7	13.5	9.8	12.0	7.8	3.3	4.6	3.2	2251 34.3
High School Graduate	33.9	11.7	7.6	17.8	11.0	4.1	7.9	6.0	1770 37.2
College	25.7	11.7	7.3	24.4	13.9	2.9	8.9	5.3	1180 28.5
N	2105	696	412	839	478	148	326	197	5201
Column Total	35.6	12.3	8.3	17.7	10.7	3.5	7.0	4.9	100.0

Chi-Square=246.114 DF=14 Probability=.000

Quantity Indicators[b]

Father's Educational Attainment	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
High School Dropout	4.52	13.89	2.78
High School Graduate	5.96	17.95	2.82
College	6.32	17.34	2.56
N		3096	

[a]Universe: Females interviewed in 1983.

[b]Universe: Females who reported drinking on at least one day out of the last 30, 1983 interview.

life span which sees major decisions made about selection of a spouse, fertility, and entry into the full time labor market. The youth in the NLS panel represent all combinations of these transitions. This section of the report will describe variations in drinking patterns associated with marriage, parenthood, and employment status.

In the age range represented by the 1983 NLS, substantially more women have gotten married and had children than is true for the young men. Young men are somewhat more likely than young women to be employed, but the difference between the sexes in employment is not as large as the difference in family roles.

Marital Status. For young men, marriage is associated with lower levels of drinking, in terms of both frequency and quantity (Table 24). Among married men who drank in the month prior to the 1983 interview, the modal pattern is light drinking once or more times per week. While few of the males in the sample fall into the previously married category, over one quarter of these divorced, separated, or widowed young men are classified as frequent heavy drinkers, and another tenth are occasional heavy drinkers. Never married men show no particular pattern--they are neither particularly likely to be abstainers nor heavy drinkers, by and large.

Among young women, marriage is even more strongly associated with low levels of alcohol use than is the case for young men (Table 25). Also, there are greater differences between married and never married women than there are between married and never married men. Almost half of the married women are non-drinkers, in contrast to one third of the non-married women. The modal drinking pattern for married women is infrequent light, meaning that they had no more than four drinks in the past month. As with young men, heavy drinking is concentrated among the previously married, but the never marrieds are much

Table 24. Alcohol Consumption Patterns by Marital Status Among Males

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Marital Status									
Never Married	21.5	6.8	6.6	13.7	11.1	7.1	14.8	18.4	4387 74.2
Married, Spouse Present	24.3	7.7	7.6	19.4	10.1	7.0	13.4	10.5	1483 22.4
Previously Married	13.7	5.7	7.1	10.8	10.8	9.5	15.8	26.6	258 3.4
N	1583	467	448	884	638	414	798	896	6128
Column Total	21.8	7.0	6.9	14.8	10.9	7.2	14.5	16.9	100.0

Chi-Square=93.822 DF=14 P=.000

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Marital Status			
Never Married	9.25	31.91	3.31
Married, Spouse Present	7.95	24.37	3.03
Other	11.09	41.40	3.59
N		4545	

[a]Universe: Males interviewed in 1983.

[b]Universe: Males who reported drinking on at least one day out of the last 30, 1983 interview.

Table 25. Alcohol Consumption Patterns by Marital Status Among Females

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Marital Status									
Never Married	31.2	11.4	7.4	18.8	13.1	4.1	8.1	5.9	3432 58.5
Married, Spouse Present	47.7	14.5	9.1	14.2	6.1	1.8	5.2	1.4	2118 34.5
Other	30.6	10.2	13.3	19.2	9.4	5.8	3.7	7.8	515 6.9
N	2558	814	481	932	539	169	365	207	6065
Column Total	36.8	12.4	8.4	17.3	10.4	3.4	6.8	4.5	100.0

Chi-Square=191.418 DF=14 P=.000

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Marital Status			
Never Married	6.05	18.07	2.76
Married, Spouse Present	4.32	11.05	2.51
Other	6.19	19.52	3.00
N		3507	

[a]Universe: Females interviewed in 1983.

[b]Universe: Females who reported drinking on at least one day out of the last 30, 1983 interview.

more likely than other women to be in any of the other moderate or irregular drinking categories.

Parenthood. As with marriage, parenthood is associated with lower levels of alcohol consumption, especially for young women (Tables 26 and 27). For young men, living in a household which includes their children is associated with higher levels of abstaining, infrequent non-light, and occasional heavy drinking, relative to non-fathers. For young women, on the other hand, motherhood is associated with non-drinking or with infrequent drinking. Non-mothers drink more frequently than mothers, although the mean drinks per day ar almost identical.

Employment Status. Employment status as of the week prior to the interview is shown in Tables 28 and 29. The definitions of employment, unemployment, and being out of the labor force are derived from the standards used by the Department of Labor on its Current Population Survey. Employed youth have a job (although they may have been on vacation or sick leave during the actual interview week). Youth who do not have jobs must have looked for work in the past four weeks in order to be counted as unemployed, otherwise they are considered out of the labor force (OLF). For this age group, the bulk of young men who are OLF are students, although some of them are discouraged workers. For young women, in addition to students and discouraged workers OLF group includes a fair proportion of housewives.

The pattern of alcohol consumption across employment categories for young men fits with previous patterns noted for income-related characteristics. Employed youth are most likely to report regular light drinking or frequent heavy drinking, while unemployed men are overrepresented in the occasional heavy and infrequent nonlight categories. Young men who are OLF are overrepresented somewhat in the non-drinker category, but are very close to the overall percentages in the other drinking categories.

Table 26. Alcohol Consumption Patterns by Parental Status Among Males

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Living with Own Children									
No	20.9	7.0	6.6	14.9	10.8	7.0	14.6	18.1	5108 86.3
Yes	27.6	6.9	8.5	14.3	11.0	8.1	13.9	9.7	1021 13.7
N	1583	467	448	884	638	414	799	896	6129
Column Total	21.8	7.0	6.9	14.8	10.9	7.2	14.5	16.9	100.0

Chi-Square=34.392 DF=7 P=.000

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Living with Own Children			
No	9.23	31.53	3.27
Yes	7.67	24.42	3.23
N		4546	

[a]Universe: Males interviewed in 1983.

[b]Universe: Males who reported drinking on at least one day out of the last 30, 1983 interview.

Table 27. Alcohol Consumption Patterns by Parental Status Among Females

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Living with Own Children									
No	30.5	11.4	8.2	19.8	12.4	3.6	8.1	6.0	3745 68.4
Yes	50.5	14.5	8.8	11.8	6.1	3.1	4.0	1.2	2321 31.6
N	2558	814	481	933	539	169	365	207	6066
Column Total	36.8	12.4	8.4	17.3	10.4	3.4	6.8	4.5	100.0

Chi-Square=240.244 DF=7 P=.000

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Living with Own Children			
No	6.09	17.81	2.72
Yes	3.97	11.17	2.68
N		3508	

[a]Universe: Females interviewed in 1983.

[b]Universe: Females who reported drinking on at least one day out of the last 30, 1983 interview.

Table 28. Alcohol Consumption Patterns by Employment Status Among Males

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Employment Status									
Employed	20.1	7.1	6.4	15.9	10.8	6.7	15.8	17.1	3653 64.4
Unemployed	22.6	7.3	9.8	13.1	10.4	9.3	11.2	16.3	989 13.6
Out of the Labor Force	26.3	6.2	6.3	12.9	11.4	7.2	12.8	16.8	1487 22.0
N	1583	467	448	884	638	414	799	896	6129
Column Total	21.8	7.0	6.9	14.8	10.9	7.2	14.5	16.9	100.0

Chi-Square=61.580 DF=14 P=.000

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Employment Status			
Employed	9.31	30.69	3.19
Unemployed	8.26	29.86	3.48
Out of the Labor Force	8.68	30.93	3.35
N		4546	

[a]Universe: Males interviewed in 1983.

[b]Universe: Males who reported drinking on at least one day out of the last 30, 1983 interview.

Table 29. Alcohol Consumption Patterns By Employment Status Among Females

Alcohol Consumption Patterns[a]
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Employment Status									
Employed	30.6	12.8	8.8	20.1	11.7	3.3	7.2	5.2	3291 61.3
Unemployed	38.7	13.7	9.2	13.5	8.9	3.6	8.7	3.7	741 10.4
Out of the Labor Force	49.7	10.9	7.4	11.8	8.2	3.7	5.1	3.1	2034 28.4
N	2558	814	481	933	539	169	365	207	6066
Column Total	36.8	12.4	8.4	17.3	10.4	3.4	6.8	4.5	100.0

Chi-Square=193.861 DF=14 P=.000

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Employment Status			
Employed	5.77	16.52	2.67
Unemployed	5.14	15.86	2.80
Out of the Labor Force	5.13	15.27	2.78
N		3508	

[a]Universe: Males interviewed in 1983.

[b]Universe: Males who reported drinking on at least one day out of the last 30, 1983 interview.

Among the young women, the contrast between youth who are employed with youth who are unemployed is quite similar to the patterns observed for the young men. The OLF group, however, is further from the overall drinking distribution. Almost half of the OLF women are non-drinkers. Partly in consequence, they are underrepresented in almost all the other categories. Among those who drink, OLF women are more similar to the unemployed than to the employed women.

OCCUPATIONAL AND INDUSTRIAL PATTERNS OF ALCOHOL USE

Alcohol use is generally considered to be strongly influenced by the psychosocial context of youth. One major branch of the literature on alcohol research deals with alcohol use among various occupational groups. Most of these studies are done within a single occupation or contrasting a limited number of occupations. The NLS, which represents a major research effort on the part of the Department of Labor, has recorded the work histories of the youth panel in some detail. What follows is only a cursory pass over the data, with the intent of tracking broad occupational and industrial patterns of alcohol consumption. The analysis is limited to youth who were employed as of the interview date. The jobs described are the jobs held in the week prior to the interview. Even restricting the sample, the number of respondents exceeds 3,000 for both males and females.

Occupation. Tables 30 and 31 show the distributions of alcohol patterns according to broad occupational categories.[6] Relative to other dimensions,

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[6]Farmers and farm laborers were eliminated from the analysis because there were very few respondents in this category. Preliminary tables suggested that the patterns of drinking shown by farmers were distinct from other groups, so combining farmers with other groups would add noise to the data. There were also too few private household workers for separate analysis, but it was determined that adding them to the service occupations was appropriate.

Table 30. Alcohol Consumption Patterns By Occupation Among Males

(Alcohol Consumption Patterns)[a]
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Occupation									
Professional, Technical	19.3	7.0	4.3	21.7	11.4	1.2	18.5	16.6	328 11.0
Managers, Administrators	14.6	5.8	4.7	17.1	8.1	6.0	29.7	14.0	178 6.0
Sales	14.8	10.7	6.2	24.1	8.8	4.2	11.1	20.0	174 5.8
Clerical	22.9	7.1	6.3	20.0	10.5	5.7	15.7	11.9	392 11.6
Craftsmen	20.0	6.6	5.6	12.9	11.3	10.3	14.8	18.6	598 16.7
Operatives	20.5	5.9	6.2	13.0	14.0	7.8	13.3	19.2	707 18.8
Laborers	21.9	6.2	8.9	13.8	9.1	6.2	16.6	17.3	488 13.1
Service, Private Household	19.4	9.4	7.1	13.1	9.9	7.6	14.6	18.9	660 17.0
N	811	272	251	557	381	223	491	539	3525
Column Total	19.9	7.2	6.3	15.8	10.9	6.7	15.9	17.4	100.0

Chi-Square=89.802 DF=49 P=.0003

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Occupation			
Professional, Technical	8.85	25.45	2.67
Managers, Administrators	10.93	33.35	2.98
Sales	10.09	29.51	2.87
Clerical	7.99	24.38	2.99
Craftsmen	9.26	32.39	3.45
Operatives	9.19	33.32	3.46
Laborers	9.73	33.56	3.36
Service, Private Household	9.46	31.95	3.22
N		2714	

[a]Universe: Employed males interviewed in 1983.

[b]Universe: Employed males who reported drinking on at least one day out of the last 30, 1983 interview.

Table 31. Alcohol Consumption Patterns By Occupation Among Females

(Alcohol Consumption Patterns)
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Occupation									
Professional Technical	24.0	16.9	5.5	28.6	13.3	.3	7.5	4.0	356 11.5
Managers, Administrators	19.2	14.6	6.9	21.5	16.1	6.9	11.8	3.1	127 4.1
Sales	31.3	11.4	7.9	20.7	14.2	5.8	4.4	4.3	252 8.4
Clerical	29.8	13.3	9.8	20.4	12.5	2.4	7.5	4.4	1316 40.7
Craftsmen	27.7	15.6	9.5	21.4	8.9	4.1	9.4	3.4	49 1.4
Operatives	43.7	10.7	9.7	8.1	9.4	4.1	8.4	5.9	247 6.0
Laborers	26.9	9.9	10.4	24.7	6.0	10.8	1.6	9.7	48 1.6
Service, Private Household	33.1	11.2	9.1	19.5	9.4	3.8	6.7	7.3	875 26.4
N	1147	454	262	606	344	92	230	135	3270
Column Total	30.4	12.9	8.8	20.5	11.7	3.3	7.2	5.2	100.0

Chi-Square=121.528 DF=49 P=.000

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Occupation			
Professional, Technical	6.00	13.96	2.21
Managers, Administrators	6.19	17.37	2.78
Sales	5.74	16.46	2.80
Clerical	5.34	15.18	2.62
Craftsmen	4.75	12.44	2.47
Operatives	5.87	19.36	3.08
Laborers	5.60	19.59	2.95
Service, Private Household	6.37	19.29	2.84
N		2123	

[a]Universe: Employed females interviewed in 1983.

[b]Universe: Employed females who reported drinking on at least one day out of the last 30, 1983 interview.

the relationship between drinking and occupation for young men is significant but small. Craftsmen and operatives have very similar patterns, drinking less often than some other groups but consuming the highest quantity of alcohol per drinking day of any category. Professionals tend to be light drinkers, but have relatively low frequency. Counter to the stereotype of multiple martini afternoons, men in sales, while having a relatively high frequency of drinking also record a fairly low drinking rate.

The occupational distribution for women reflects the traditional concentration of women in clerical and service jobs. As with the men, those in professional jobs tend to drink regularly but at low daily levels. Blue collar women tend to drink less frequently but more heavily. Rather than following the pattern of their male counterparts, the relatively few women in craft occupations drink they drink less often and lower quantities than do women in other classes. Women in the lower skill occupational groups--operatives, laborers, and service workers--drink larger quantities per day than do other women. At the same time, a high proportion of these low skill groups are non-drinkers.

Industry. Table 32 shows the patterns for young men broken down by common industrial classification. Agriculture and mining have been deleted due to low rates of participation. Because large numbers of young people are employed in restaurants and bars, the category of eating and drinking places was separated from other trade industry codes. This single category contains over eight percent of the total number of employed men.

Given the size of the sample, the relationship between industry and drinking among young men is tenuous, although significant. The entertainment industry are the heaviest drinkers, any way drinking is measured. The lowest levels of alcohol use are reported in the professional servces and the finance and insurance industries.

Table 32. Alcohol Consumption Patterns By Industry Among Males

(Alcohol Consumption Patterns)
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Industry									
Construction	17.1	7.8	7.2	15.7	14.3	10.1	14.3	13.5	324 9.3
Manufacturing	19.6	6.3	6.3	14.3	10.8	8.3	15.6	18.8	717 20.8
Transportation, Communications	20.1	6.9	8.9	16.1	10.0	6.4	16.1	15.5	207 5.8
Trade	20.2	6.8	7.5	17.3	9.3	7.4	14.5	17.0	697 22.4
Finance, Insurance	16.5	9.8	3.8	14.9	15.4	3.0	22.7	13.9	106 2.9
Business, Repair	17.4	7.0	6.7	18.1	9.2	4.4	18.6	18.6	325 9.0
Personal Services	13.8	6.9	4.7	13.2	14.5	4.3	15.9	26.8	119 3.5
Entertainment, Recreation	18.0	1.0	8.6	16.1	6.3	9.7	18.0	22.3	80 2.6
Professional Services	26.3	9.4	3.3	13.9	11.2	2.8	17.1	16.0	373 10.9
Public Administration	17.5	7.8	12.3	15.1	18.5	7.2	9.7	11.9	142 3.9
Eating and Drinking Places	20.3	9.2	4.6	15.4	8.4	7.9	15.5	18.7	307 8.8
N	784	266	245	530	368	216	472	516	3397
Column Total	19.7	7.3	6.5	15.7	10.9	6.9	15.7	17.3	100.0

Chi-Square=95.166 DF=70 P=.024

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Occupation			
Construction	8.91	27.74	3.23
Manufacturing	9.51	32.31	3.29
Transportation, Communications	8.35	27.84	3.22
Trade	9.18	31.04	3.27
Finance, Insurance	8.67	25.32	2.91
Business, Repair	10.33	32.52	3.08
Personal Services	10.14	33.87	3.17
Entertainment, Recreation	11.71	39.47	3.61
Professional Services	7.98	26.60	3.00
Public Administration	7.23	23.49	3.19
Eating and Drinking Places	10.41	36.67	3.09
N		2613	

[a]Universe: Employed males interviewed in 1983.

[b]Universe: Employed males who reported drinking on at least one day out of the last 30, 1983 interview.

Table 33. Alcohol Consumption Patterns By Industry Among Females

(Alcohol Consumption Patterns)
(Row Percent Distributions)

	Non-Drinkers	Infrequent Light	Infrequent Nonlight	Light	Occasional Moderate	Occasional Heavy	Irregular	Frequent Heavy	Row Total
Industry									
Manufacturing	35.2	12.5	9.1	16.5	11.3	4.0	5.3	6.1	411
									11.8
Transportation, Communications	18.0	13.6	13.5	31.6	11.8	0.0	7.0	4.6	96
									2.7
Trade	28.0	11.4	10.6	20.0	13.7	4.9	6.2	5.1	584
									18.7
Finance Insurance	27.9	11.5	10.2	22.6	13.6	3.1	2.5	1.6	286
									9.3
Business, Repair	23.1	10.2	3.5	25.3	10.9	5.0	15.0	6.4	111
									3.6
Personal Services	41.6	9.8	8.6	16.8	7.9	4.3	6.6	4.4	233
									7.1
Entertainment, Recreation	13.1	10.1	3.3	22.5	12.7	9.4	7.9	21.1	54
									1.8
Professional Services	31.5	16.3	7.2	22.1	10.8	1.3	6.8	4.0	890
									27.6
Public Administration	43.3	17.0	14.9	12.7	5.7	3.0	3.5	0.0	167
									4.7
Eating and Drinking Places	26.0	9.6	7.8	20.5	14.9	3.6	8.1	9.5	377
									12.1
N	1131	448	259	595	341	91	223	131	3219
Column Total	30.5	12.8	8.9	20.5	11.8	3.3	7.1	5.1	100.0

Chi-Square=149.239 DF=63 P=.000

Quantity Indicators[b]

	Mean Number of Days Drank in Last Month	Mean Number of Drinks in Last Month	Mean Drinks per Drinking Day
Industry			
Manufacturing	5.88	17.57	2.82
Transportation, Communication	5.96	16.53	2.57
Trade	5.35	16.02	2.80
Finance, Insurance	5.03	13.08	2.55
Business, Repair	7.75	22.27	2.62
Personal Services	5.64	16.95	2.83
Entertainment, Recreation	9.96	36.35	3.16
Professional Services	5.30	13.82	2.40
Public Administration	3.34	9.43	2.76
Eating and Drinking Places	7.29	21.08	2.85
N		2088	

[a]Universe: Employed females interviewed in 1983.

[b]Universe: Employed females who reported drinking on at least one day out of the last 30, 1983 interview.

Among the young women, the relationship between industry and alcohol use is stronger, but not necessarily more meaningful. As with the men, women in entertainment are heavy drinkers. Young women who work in eating and drinking places also report drinking alcohol frequently and in relatively large quant - ties. The pattern suggests that drinks may be more available to these groups, since they are often part of the workplace itself. Over two fifths of the women in public administration are non-drinkers, and those who do drink report the lowest mean frequency of any group.

CONCLUSIONS

The results of the consistency and change analysis suggest some caution in interpreting the results. Alcohol use patterns are dynamic, not static, so treating them as permanent traits of individuals is misleading. Nevertheless, at least three patterns emerge from the bivariate tables presented above.

First, there are age trends in the data which suggest that drinking to the point of drunkeness may peak at about age 19 or 20. The pattern is consistent with a period of experimentation with alcohol, perhaps as a symbol of the larger transition into adulthood, followed by integration of light to moderate levels of alcohol as a part of a life style.

One factor which may affect the patterns of alcohol consumption across chronological age is the entry of young men and women into adult roles. For women particularly, being married and having children are associated with low levels of alcohol consumption. Older youth are more likely to have undertaken the roles of spouse and parent. Possibly, the apparent age effect is largely due to the proportions of young people who have started their own families.

Variables associated with social class also show a consistent pattern. Youth with more education, whose parents have at least some college, who are

not poor, who are white, and who come from mainstream churches, tend to drink twice a week or more, but generally in moderation. Youth with the characteristics associated with lower levels of income and status, on the other hand, have much higher proportions of non-drinkers and overall drink less frequently than other youth, but those who drink tend to drink larger quantities per drinking day. Perhaps two subcultures can be identified in these less privileged groups, one which frowns on alcohol consumption in any amount, and another which condones or encourages heavy drinking.

Occupation and industry seem to have little effect on drinking, at least as measured in the NLS. Higher status occupations do tend to show the frequent controlled drinking pattern associated with high status groups. Industrial patterns are less easy to describe, except that youth who are likely to come in contact with alcohol in the course of their work are likely to drink more frequently (and perhaps more heavily) than youth in other industries.

The goal of this report has been more to describe the drinking patterns present in the NLS data than to explain them. Clearly, multivariate analysis will help to determine which of the dimensions have stable relationships with drinking and which relationships are spurious. Repeated measures will further help to determine the consistency of alcohol consumption, and most importantly, what factors are associated with persistent alcohol-related problems.

References

Cahalan, D.; I.H. Cissin; and H.M. Crossley, American Drinking Practices: A National Study of Drinking Behavior and Attitudes. New Brunswick, New Jersey: Rutgers Center of Alcohol Studies, 1969.

Chi, S. Kenneth. "Religious Affiliation and Marital Success: Questioning the Established Viewpoint." Unpublished Master's Thesis, The Ohio State University, 1982.

Institute of Medicine. Alcoholism, Alcohol Abuse, and Related Problems: Opportunities for Research. Washington, D.C.: National Academy Press, 1980.

Jessor, R. and S.L. Jessor. Problem Behavior and Psychosocial Development: A Longitudinal Study of Youth. New York: Academic Press, 1977.

Kandel, D.B. "Drug and Drinking Behavior Among Youth." Annual Review of Sociology 6 (1980): 235-285.

Potvin, Raymond H. and Che-Fu Lee. "Multistage Models of Adolescent Alcohol and Drug Use: Age Variations." Journal of Studies on Alcohol 41,5 (1980): 531-542.

Rachal, J. Valley; J.R. Williams; Mary L. Brehm; Betty Cavanaugh; R. Paul Moore; and William C. Eckerman. A National Study of Adolescent Drinking Behavior, Attitudes and Correlates. U.S. Department of Health, Education, and Welfare. Contract No. HSM 42-73-80 (NIA), April 1970.

Radosevich, Marcia; Lonn Lanza-Kaduce; Ronald L. Akers; and Marvin D. Krohn. "The Sociology of Adolescent Drug and Drinking Behavior: A Review of the State of the Field: Part I." Deviant Behavior 1 (1979): 15-35.

_____. "The Sociology of Adolescent Drug and Drinking Behavior: A Review of the State of the Field: Part II." Deviant Behavior 1 (1980): 145-169.

Smart, R.G.; and G.F. Murray. "A Review of Trends in Alcohol and Canabis Use Among Young People." Bulletin on Narcotics 33,4 (1981): 77-90.

APPENDIX A

DECK 42

1982 Survey Instrument: Alcohol Use Section

SECTION 13: ALCOHOL USE

1. Next I'd like to ask you some questions about drinking alcoholic beverages, including beer, wine, and liquor. Have you ever had a drink of an alcoholic beverage?

Yes 1 70/

No ... (SKIP TO SECTION 14) 0

---

2. How old were you when you first started drinking? PROBE: For example, having two or more drinks a week?

ENTER AGE | | | 71-72/

IF VOLUNTEERED: Never have 00

---

3. Have you had any alcoholic beverages, including beer, wine, or liquor, during the last 30 days?

Yes 1 73/

No ..... (SKIP TO Q. 10) 0

---

4. How often have you had 6 or more drinks on one occasion during the last 30 days? Would you say it was .. (READ CATEGORIES) ..?

10 or more times 6 74/

8 or 9 times 5

6 or 7 times 4

4 or 5 times 3

2 or 3 times 2

Once 1

Never 0

---

5. How often in the last 30 days did you go to bars, taverns, or cocktail lounges? Did you go .... (READ CATEGORIES) ..?

HAND CARD Y

Almost every day 5 75/

Several times a week 4

Once or twice a week 3

2-3 times during the month 2

Once this month 1

Never 0

BEGIN DECK 43

Next, I'd like some information about drinking alcoholic beverages, including beer, wine, and liquor, during the past week.

6. During the last seven days, on how many days did you drink alcoholic beverages?

1 day	01	10-11/
2 days	02	
3 days	03	
4 days	04	
5 days	05	
6 days	06	
7 days	07	
None .....(SKIP TO Q. 10).....	00	

---

7. During the last seven days, how many cans or bottles of beer did you have?

ENTER NUMBER OF CANS OR BOTTLES |__|__| 12-13/

None 00

---

8. During the last seven days, how many glasses of wine did you have?

ENTER NUMBER OF GLASSES |__|__| 14-15/

None 00

---

9. During the last seven days, how many drinks did you have containing liquor, such as whiskey, vodka, gin, brandy, etc.?

ENTER NUMBER OR DRINKS |__|__| 16-17/

None 00

---

10. A. Has drinking ever interfered or caused a problem with your school work?

Yes	1	18/
No	0	

B. Has drinking ever interfered or caused a problem with your work on a job?

Yes	1	19/
No	0	

---

11. INTERVIEWER: WAS ANYONE ELSE PRESENT BESIDES YOU AND THE R WHEN YOU ASKED THE QUESTIONS IN SECTION 13?

YES	1	20/
NO	0	

SECTION 12: ALCOHOL USE

1. Next I'd like to ask you some questions about drinking alcoholic beverages, including beer, wine, and liquor. Have you ever had a drink of an alcoholic beverage?

Yes 1 19/

No ..... (SKIP TO Q.14) 0

---

2. A. How old were you when you first began drinking alcoholic beverages on a regular basis, that is at least once or twice a month?

ENTER AGE |_|_| 20-21/

Do not drink once or twice a month ..... (GO TO Q. 3) 00

B. How old were you when you first began drinking alcoholic beverages at least once or twice a week?

ENTER AGE: |_|_| 22-23/

Do not drink once or twice a week 00

---

3. Have you had any alcoholic beverages, including beer, wine, or liquor, during the last 30 days?

Yes 1 24/

No ..... (SKIP TO Q. 13) 0

---

4. How often have you had 6 or more drinks on one occasion during the last 30 days? Would you say it was .... (READ CATEGORIES) ..?

HAND CARD W

10 or more times 6 25/

8 or 9 times 5

6 or 7 times 4

4 or 5 times 3

2 or 3 times 2

Once 1

Never 0

---

5. During the last 30 days, on how many days did you drink any alcoholic beverages, including beer, wine, or liquor?

ENTER # OF DAYS: |_|_| 26-27/

6. Now we would like to ask you how many drinks you had on those days. Of the (NUMBER OF DAYS IN Q. 5) days you mentioned, on how many of those days did you have 1 drink? On how many of those days did you have 2 drinks? (REPEAT QUESTION FOR EACH CATEGORY AS NECESSARY)

HAND CARD X

. . .1 drink?	ENTER # OF DAYS: |__|__|	28-29/
. . .2 drinks?	ENTER # OF DAYS: |__|__|	30-31/
. . .3 drinks?	ENTER # OF DAYS: |__|__|	32-33/
. . .4 drinks?	ENTER # OF DAYS: |__|__|	34-35/
. . .5 drinks?	ENTER # OF DAYS: |__|__|	36-37/
. . .6 or more drinks?	ENTER # OF DAYS: |__|__|	38-39/
	+	
TOTAL # OF DAYS =	|__|__|	40-41/

A. INTERVIEWER: DOES TOTAL # OF DAYS OF Q. 6 = # OF DAYS IN Q. 5?

YES..... 1

NO...(RECHECK Q.5 AND Q.6 WITH R).... 0

---

7. How often in the last 30 days did you go to bars, taverns, or cocktail lounges? Did you go ... (READ CATEGORIES) ...? (INTERVIEWER: DO NOT INCLUDE RESTAURANTS)

HAND CARD Y

Almost every day	5	42/
Several times a week	4	
Once or twice a week	3	
2-3 times during the month	2	
Once this month	1	
Never	0	

---

8. On how many days have you had a hangover that interfered with your activities the next day during the last 30 days?

ENTER # OF DAYS: \|__\|__\| 43-44/

Never 00

Next, I'd like some information about drinking alcoholic beverages, including beer, wine, and liquor, during the past week.

9. During the last seven days ending with yesterday, on how many days did you drink alcoholic beverages?

1 day	01	45-46/
2 days	02	
3 days	03	
4 days	04	
5 days	05	
6 days	06	
7 days	07	
None .....(SKIP TO Q. 13).....	00	

---

10. During the last seven days, how many cans or bottles of beer did you have?

ENTER NUMBER OF CANS OR BOTTLES: |__|__| 47-48/

None 00

---

11. During the last seven days, how many glasses of wine did you have?

ENTER NUMBER OF GLASSES: |__|__| 49-50/

None 00

---

12. During the last seven days, how many drinks did you have containing liquor, such as whiskey, vodka, gin, brandy, etc.?

ENTER NUMBER OR DRINKS: |__|__| 51-52/

None 00

---

13. A. Has drinking ever interfered with your school work?

Yes	1	53/
No	0	

B. Has drinking ever interfered with your work on a job?

Yes	1	54/
No	0	

---

14. INTERVIEWER: WAS ANYONE ELSE PRESENT BESIDES YOU AND THE R WHEN YOU ASKED THE QUESTIONS IN SECTION 12?

YES	1	55/
NO	0	
PHONE INTERVIEW	2	

The Center has also been active in manpower planning both in the U.S. and in the developing countries. A project for the Ohio Advisory Council for Vocational Education identified the highly fragmented institutions and agencies which supply vocational and technical training in Ohio. Subsequent projects for the Ohio Occupational Information Coordinating Committee have followed graduates of these programs. These data and information on occupational distributions of employers collected for the Occupational Employment Statistics Program are being integrated into a comprehensive planning model which will be accessible to trainees and employers and linked to a national network.

Another focus of the Center's research is industrial relations and collective bargaining. In a project for the U.S. Department of Labor, staff members are working with unions and management in a variety of industries to evaluate several current experiments for expedited grievance procedures. The procedural adequacies, safeguards for due process, and cost and timing of the new procedure are being weighed against traditional arbitration techniques.

Senior staff also serve as consultants to many boards and commissions at the national and state level. Recently the Center's staff have produced papers and prepared testimony for the Department of Labor, the Vice President's Task Force on Youth Unemployment, the Joint Economic Committee of Congress, the National Commission for Employment and Unemployment Statistics, the National Commission for Employment Policy, the White House Conference on the Family, the Ohio Department of Corrections, the Ohio Board of Regents, the Ohio Governor's Task Force on Health, and the Ohio Governor's Task Force on Welfare.

The Center maintains a working library of approximately 10,000 titles, including a wide range of reference works and current periodicals, as well as an extensive microfilm and microfiche collection. Through their facilities linked to the University computer, the Center's data processing staff provide statistical, technical, and programming support both for in-house researchers and the over 250 users of the National Longitudinal Surveys data tapes. They maintain the NLS tapes, data base, documentation, and associated software.

For information on specific Center activities, write: Director, Center for Human Resource Research, 5701 North High Street, Worthington, Ohio 43085.

The Ohio State University

The Center for Human Resource Research
5701 North High Street
Worthington, Ohio 43085

Center for Human Resource Research

The Center for Human Resource Research is a policy-oriented multidisciplinary research organization affiliated with The Ohio State University. Established in 1965, the Center is concerned with a wide range of contemporary problems related to developing and conserving human resources. Its more than thirty senior staff members come from disciplines including economics, education, English, health sciences, industrial relations, management science, psychology, public administration, social work, and sociology. This multidisciplinary team is supported by approximately 70 graduate research associates, full-time research assistants, computer programmers, and other personnel.

The Center has become preeminent in the fields of labor market research and manpower planning. With continuing support from the United States Department of Labor, the Center has been responsible since 1965 for the National Longitudinal Surveys of Labor Market Experience. Staff have assisted in population and human resource planning throughout the world, having conducted major studies in Bolivia, Ecuador, Kenya, Sierra Leone, Venezuela, and Zaire. At the request of the National Science Foundation, a review of the state of the art in human resource planning was conducted. Other studies have assessed the impact of labor and education policy on labor supply and evaluated employment statistics collection methods. Senior personnel are also engaged in several other areas of research—collective bargaining and labor relations, evaluation and monitoring of the operation of government employment and training programs, and the projection of health education and facility needs.

The Center for Human Resource Research has received over two million dollars annually from government agencies and private foundations to support its research in recent years. Providing support have been the U.S. Departments of Labor, State, Defense, Education, Health and Human Services; Ohio's Health and Education Departments and Bureau of Employment Services; the Ohio cities of Columbus and Springfield; the Ohio AFL-CIO; the George Gund Foundation; the Rockefeller Foundation; and the Ford Foundation. The breadth of the Center's research interests is best illustrated by a brief review of a few of its current projects.

The Center's largest project is the National Longitudinal Surveys of Labor Market Experience. This project has involved repeated interviews over a fifteen-year period with four groups of the United States population: older men, middle-aged women, and young men and women. The data are collected for 20,000 individuals by the U.S. Bureau of the Census, and the center is responsible for data analysis. Since 1979, the NLS has followed an additional cohort of 13,000 young men and women between the ages of 14 and 21. This cohort includes for the first time those serving in the armed forces at the time of the initial interview. In addition to being the definitive U.S. national data set on the labor market activities of young adults, this continuing survey includes unique batteries of questions on such socially important issues as delinquency, alcohol and drug use, fertility, and prenatal care. For this cohort, field work is handled by the National Opinion Research Center. To date the Center's staff have prepared dozens of research monographs, special reports, and books on the NLS, and they also prepare and distribute data tapes for public use.

The Quality of Work Life Project, another ongoing study, began in 1975 as an attempt to improve the productivity and the meaningfulness of work for public employees in the cities of Springfield and Columbus. Center staff also served as third party advisers and researchers exploring new techniques for attainment of management-worker cooperation and worker health in a number of central Ohio private sector industries.

(Continued on inside back cover)

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Center for Human Resource Research

The Ohio State University

Status Variations in Alcohol Use among Young Adults: Results from the 1984 National Longitudinal Surveys of Youth

by

Joan E. Crowley

August 1985

Center for Human Resource Research

The Ohio State University

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Status Variations in Alcohol Use among Young Adults: Results from the 1984 NLS of Youth

INTRODUCTION

Previous reports in this series have focused on descriptions of alcohol use patterns in the National Longitudinal Surveys of Labor Market Experience of Youth (NLS). This report extends the descriptive material to the 1984 data, and extends those results with multivariate anlayses of alcohol use patterns as they are related to indicators of socio-economic status. In 1984, the questions on alcohol use were supplemented for the first time with questions on problems resulting from alcohol use. A major portion of this report will detail the patterns of reported problem within the young adult population.

Concepts of Consumption.

Alcohol is unique among drugs in that its use is considered part of normal adulthood by a large majority of the population. At the same time, excessive use of alcohol is a well-documented social problem (Institute of Medicine, 1980). The boundaries between having a good time and problem drinking are blurred. Alcohol use increased substantially over the 1960's and 70's, and the trend may be continuing (Smart and Murray, 1981).

One of the problems of discussing alcohol use is the lack of consensus about the appropriate measurement of drinking behavior. Most of the epidemiological literature uses some form of quantity or quantity-frequency measure (c.f., Radosevich, et al., 1979). Quantity measures simply aggregate the reports of alcohol use into a single figure, usually given in terms of alcohol

per unit time (day, week, or month). Adding the frequency dimension to the quantity measures offers the possibility of distinguishing between people who drink regualarly but in moderation from those who drink heavily but on fewer occasions.

A major problem with the quantity-frequency approach, usually unstated, is that the typologies are generally imposed upon the data. To my own knowl-e ge, there have been no attempts to determine if the quantity-frequency categories actually identify stable, distinguishable groups of drinkers.[1] A second problem is with interpretation of results, since the dimensions of quantity and frequency are intertwined.

The previous report in this series presented a descriptive analysis of such a quantity-frequency index. Most of the significant differences in drinking behavior among various demographic groups turned out to be between drinkers and non-drinkers. In general, factors associated with higher levels of income and social status were also associated with a higher probability of drinking. The patterns of results suggested that some of the same social status factors which were associated with higher likelihood of abstention from alcohol were also associated, among those who did drink, with high quantities of alcohol per drinking occasion.

In light of these results, the current analysis will separate the quantity-frequency measure back into its components. This report will consider drinking behavior to be a function of three types of decisions, following a logical sequence. The first choice is simply whether or not the

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[1]Repeated attempts to develop categories based on cluster analysis using the current data set failed, both because of the limitations of the cluster technology and because, perhaps, the space defined by the measures of alcohol consumption does not contain neat substructures which could be identified by clustering.

individual will consume alcohol at all, indexed by dichotomizing the respondents into drinkers vs. non-drinkers. Among drinkers, the next choice determines which occasions are appropriate for the consumption of alcohol, a choice indexed by the frequency of consumption. The final choice, for each occasion, is the quantity of alcohol desired, measured by the average quantity consumed per drinking occasion.

The quantity or frequency of alcohol consumption are of interest mainly because they are presumed to indicate the likelihood of problem drinking. The NLS is unusual in that both drinking behavior and drinking consequences are measured in the same study. In 1984, for the first time, respondents were asked whether their drinking had ever cause them to have any one of a list of possible problems. This report will look at factors which are associated with problem drinking, and contrast the results with those derived from the analysis of drinking patterns.

THE SAMPLE: THE NLS OF YOUTH.

The NLS of Youth is a panel study, initiated by the Department of Labor in 1979 with a mission of studying the transition of young people into the labor force. The initial panel included 12686 respondents between the ages of 14 and 21 as of January 1, 1979. The sample design called for a nationally representative cross-sectional base with supplemented with samples of blacks, Hispanics, non-black non-Hispanic economically disadvantaged youth, and youth in the military. Members of the panel have completed hour-long face-to-face interviews each year since 1979. The retention rate has been excellent, with approximately 95 percent of the original sample remaining in the study.

ALCOHOL USE MEASURES IN THE NLS OF YOUTH

Alcohol use measures were first introduced on the NLS survey instrument in 1982, and have been repeated and expanded in 1983 and 1984. The initial items focused on drinking patterns in the week prior to the interview. In 1983, questions were added concerning drinking quantities and frequencies in the preceding month. Since drinking is notoriously affected by situational influences, the longer period should give a better picture of the respondent's usual patterns of drinking, while keeping the reporting period short enough for accurate recall (Armor and Pollich, 1982). The items used in 1984 are shown in the appendix.

The reports of drinking in the last week include questions on the number of days on which the respondent drank, followed by questions on the total number of drinks of beer, wine, and liquor consumed during the week. The total number of drinks is highly correlated with the frequency of drinking. By computing the average number of drinks per drinking day, the correlation is substantially reduced, allowing quantity to be differentiated from frequency.

As has been noted, a one week period of observation is expected to be rather unstable as a measure of individual drinking behavior. In 1983 and 1984, respondents were asked the number of days out of the past month they had used alcohol. The question about frequency was followed up with questions about the number of days on which one drink was consumed, the number of days on which two drinks were consumed, and so on up to six or more drinks. Analogously with the data for the past week, the number of days and the average number of drinks per drinking day are used as indicators of frequency and quantity of alcohol use.

AGE AND TRENDS IN ALCOHOL CONSUMPTION

When the 1984 data are included, we can trace the one-month drinking patterns for two years and the one-week drinking patterns for three years. The age range of the NLS alcohol study, taken across years, spans the time when young people are making the transition from youth to adulthood. For many, this transition will involve establishing their patterns of alcohol use or non-use. Figures 1 through 3 track the patterns of alcohol use by age at the time of the interview, using the three years of observations as three replications.[2] The tables indicate separately for men and women then changes in alcohol use patterns, patterns which seem consistent and logical.

While the range of scores for men and women are quite similar, the figures show that there is no overlap at all in the mean frequency or quantity of alcohol consumed. Men report consistently higher levels of drinking, and the difference is fairly constant over ages and over time. Reported alcohol use levels are generally highest in the first year. This trend is more likely to be a function of the change in the extensiveness of the reports of alcohol years between the first and second year of data collection than it is to be a real period effect.

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[2]All ages presented are age at the time of interview, since the alcohol questions refer to the period immediately prior to the interview date. For the purposes of the Figures, the oldest and youngest cohorts have been omitted. The interview dates span a period from January through approximately April of each year. Eligibility for inclusion for the sample was based on age on January 1, 1979. Thus, in 1982, a portion of the youth who were 24 on January 1 had turned 25 by the interview date. Note also that these 25 year olds were also more likely than other youth to have had their interview within one week of their actual birthdays. Since alcohol is associated with celebrations, including birthdays, it is not surprising that these oldest members of the youth cohort show an abnormally high amount of alcohol consumption, relative to youth in other age groups. Conversely, the very youngest age group consists disproportionately of youth who would celebrate their birthdays at a time removed from the interview date, and would thus report on average lower consumption levels.

Figure 1: Number of Days Drank in Previous Week, by Age, for Each Survey Year

Plot of Males, 1982 Symbol used is A
Plot of Males, 1983 Symbol used is B
Plot of Males, 1984 Symbol used is C
Plot of Females, 1982 Symbol used is 1
Plot of Females, 1983 Symbol used is 2
Plot of Females, 1984 Symbol used is 3

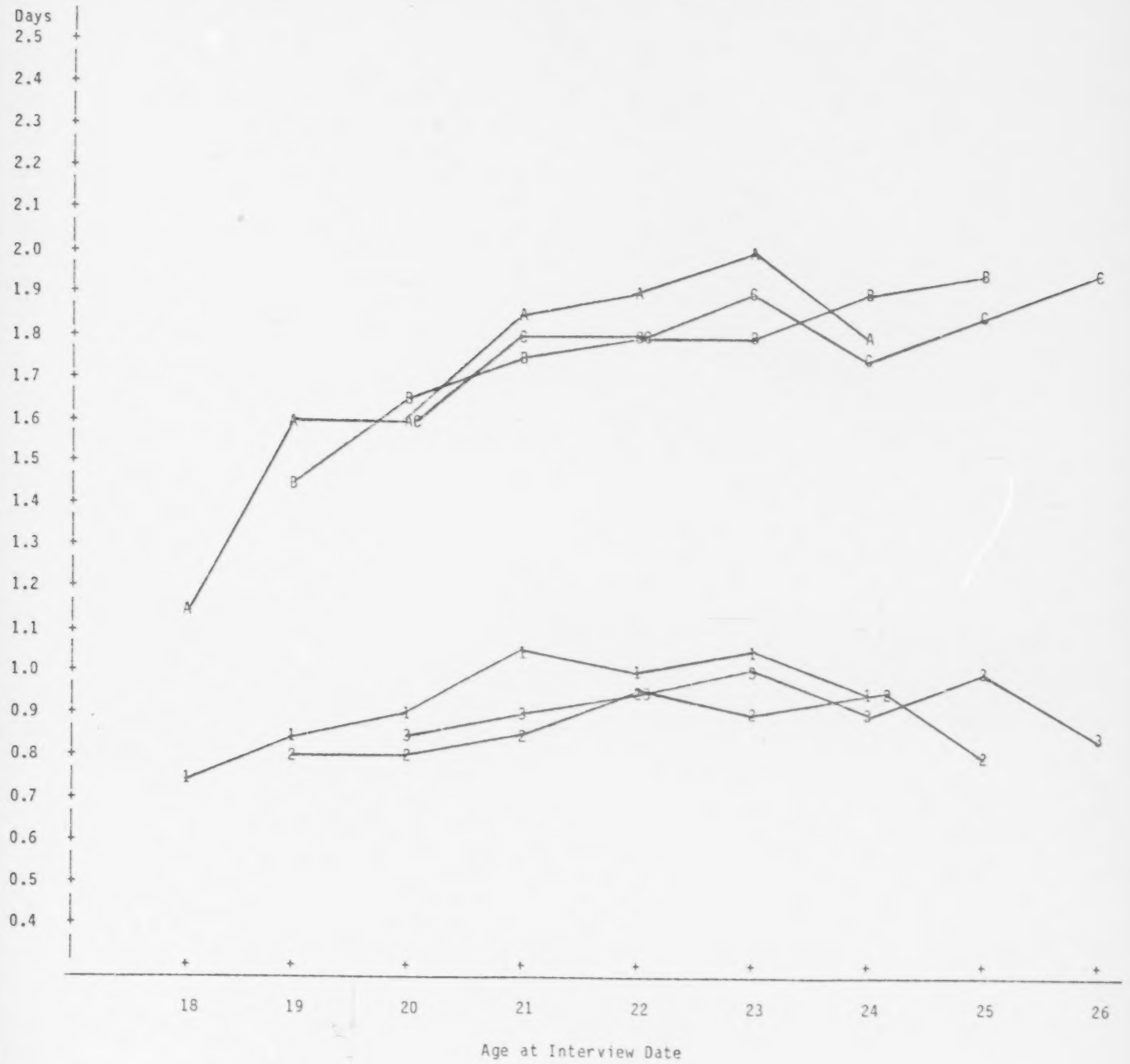


Figure 2: Total Number of Drinks Consumed in Past Week, by Age, for Each Survey Year

Plot of Males, 1982 Symbol used is A Plot of Females, 1982 Symbol used is 1
Plot of Males, 1983 Symbol used is B Plot of Females, 1983 Symbol used is 2
Plot of Males, 1984 Symbol used is C Plot of Females, 1984 Symbol used is 3

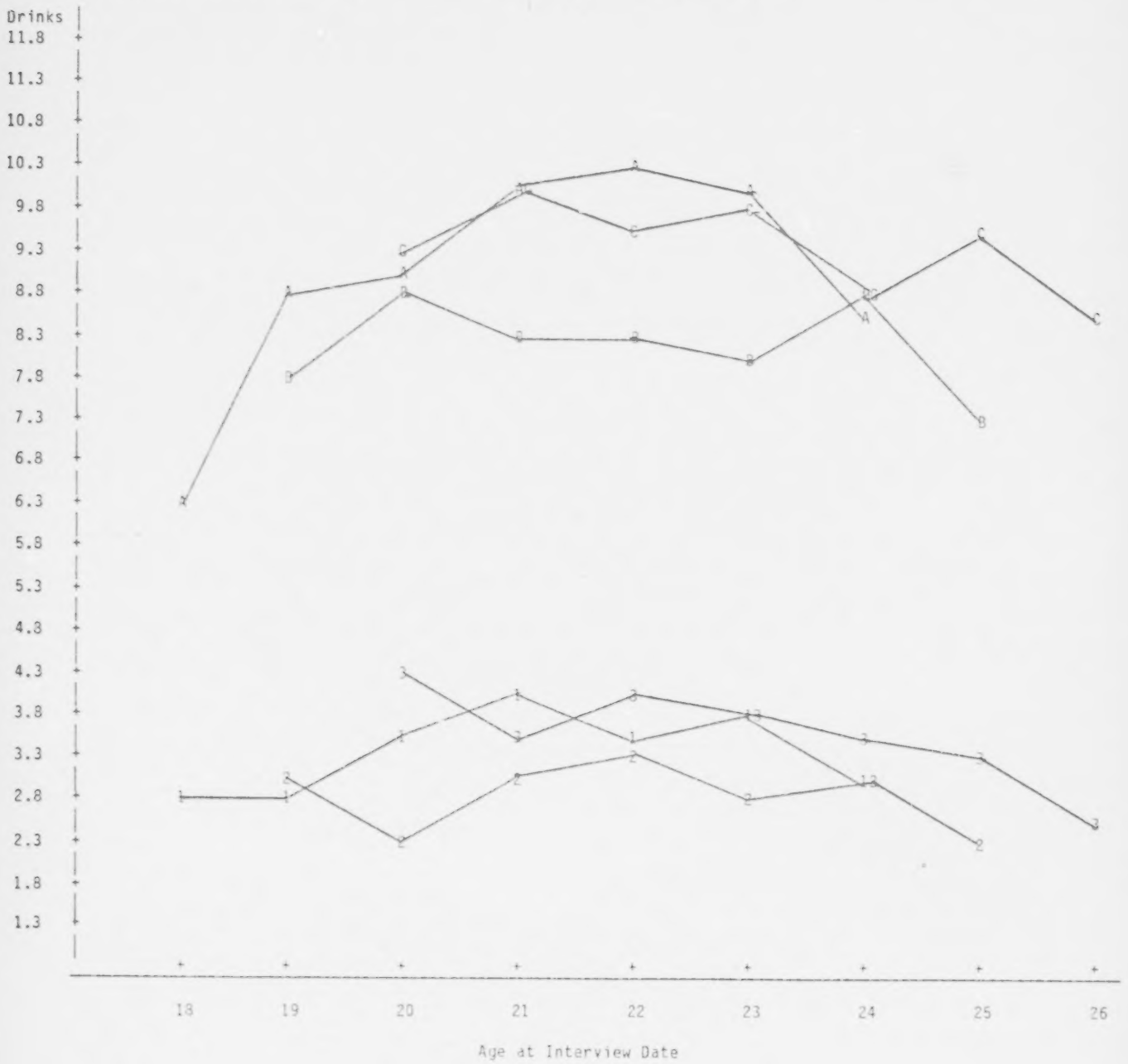
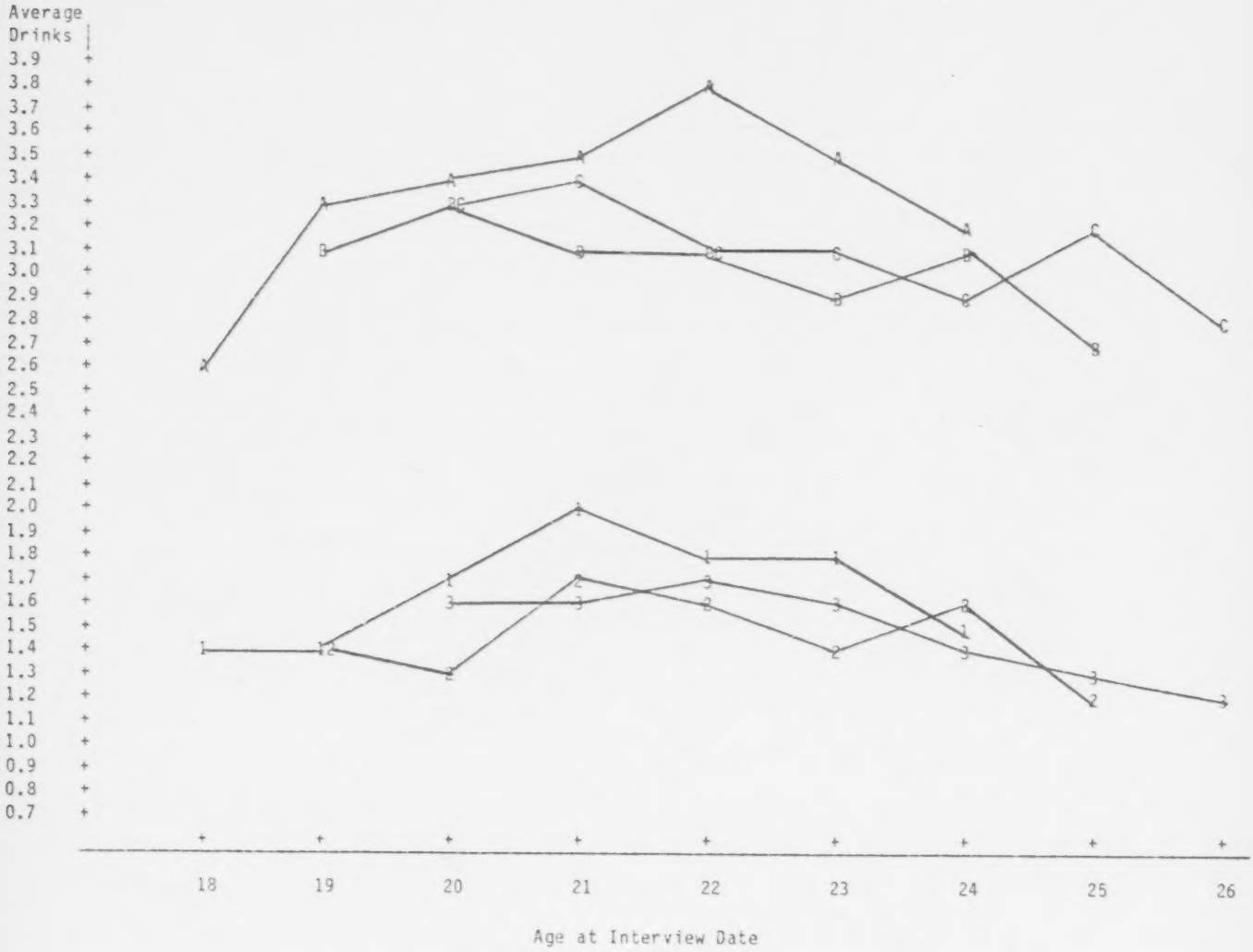


Figure 3: Average Number of Drinks per Drinking Day for Previous Week, by Age, for Each Survey Year

Plot of Males, 1982 Symbol used is A Plot of Females, 1982 Symbol used is 1
Plot of Males, 1983 Symbol used is B Plot of Females, 1983 Symbol used is 2
Plot of Males, 1984 Symbol used is C Plot of Females, 1984 Symbol used is 3



Frequency of alcohol use increases rapidly over the late teen years, then plateaus during the early twenties. The figures for the three years are quite close The quantity of alcohol consumed is fairly flat. Indeed, there is a suggestion that the amount consumed per drinking occasion may decline with age.

Drinking and social status. Table 1 shows the patterns of alcohol consumptions as functions of education, poverty and occupational status, separately for males and females.[3] Following the three-decision strategy outlined above, the first column of each table gives the results of a logit analysis on whether alcohol was or was not used in the previous month. The figures shown in the second and third columns are based on OLS regressions of the frequency and quantity of drinking for youth who reported at least one drink within that period. One striking result of the tables is how little of the variance on each index is accounted for by these variables. Drinking is sensitive to situational factors, so that these broad cultural strata probably are best thought of as associated with constraints and incentives to drink, while the situational and dispositional factors not measured by the NLS may account for more of the actual behavior.

However, several patterns do emerge clearly. Race and dropping out of school, factors usually associated with lower social status, are associated with higher proportions of abstaining, contrary to stereotype but in keeping with previous research (Radosevich, et al., 1980). Being black, a high school dropout, or not working at the time of the interview, are all significantly associated with low probabilities of drinking. However, with the exception of

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[3]Analyses not shown indicated that, while several of the relationships between drinking and status variables significantly interacted with sex, there were no significant interactions by race.

Table 1: Drinking Patterns for the Month Preceding Interview, Multivariate Analysis

Independent Variables	Females			Males		
	Any Drinks	Drink Frequency	Drink Quantity	Any Drinks	Drink Frequency	Drink Quantity
Race						
Black	-.557**	-1.25**	-.620**	-.342**	-1.76**	-.761*
Hispanic	-.364**	-2.02**	-.219*	-.023	-1.83**	.006
White	--	--	--	--	--	--
Age						
19-20	--	--	--	--	--	--
21-22	.151	.084	-.222**	.207*	.449	-.218*
23-24	.163	-.069	-.205**	.255*	.861*	-.258**
25-27	.103	.227	-.402**	.208*	.692	-.395**
Education and Enrollment						
Less than 12 years	-.169	1.01**	.511**	-.193*	.713	.377**
12 years	--	--	--	--	--	--
13-15 years	.355**	.165	-.395**	.079	.559	-.172*
16 or more years	.692**	1.13**	-.381**	.231	.258	-.359**
Student	.578**	.057	-.306**	-.140	-1.50**	-.327**
Poverty status	.204**	.251	.139*	-.222*	-.047	.163*
Occupational Status						
White collar	--	--	--	--	--	--
Blue collar	.046	.098	-.228**	.091	.058	-.234**
Not working	-.352**	-1.26**	-.233**	-.288*	-.333	.035
Constant	.567**	5.72	3.213**	1.416**	9.63	3.676**
R^2 (adj)		.02	.08		.01	.07**
F	6.47	24.59		6.62	26.06	
N 5172	3387	3387	5352	4277	4277	
df	292			282		
X^2	401.97			296.28		
Probability	.0001			.27		

minority status, these same factors are associated with high consumption levels among drinkers.

Several factors work differently for men than for women, notably education, poverty status, and occupational status. Among males, although dropouts are less likely to be drinkers than are high school graduates, there are no large differences between men who have a terminal high school degree and those who have attended college. Among women however, higher levels of eduacation are consistently associated with higher probabilities of alcohol use. In particular, drinking is positively associated with student status among women, while men who are students are less likely than high school graduates to drink. Inspection of the raw means for drinking levels shows less differentiation between men and women in their drinking patterns in the more highly educated groups.

For both men and women, high school dropouts who drink are likely to drink more often and in greater quantity than high school graduates. However, while male students drink less often than other men, female students drink about as frequently as do high school graduate women. For both men and women, respondents with higher levels of education tend to report lower quantities of alcohol consumption per occasion.

Poverty status strongly interacts with sex in its relationship with drinking. Poor men are less likely to drink than non-poor men, while among women, the relationship is reversed. For both men and women, persons in poverty who drink report higher quantities consumed than do the non-poor.

Occupational status was defined according to whether the occupation of the job held at the time of the interview was white collar or blue collar or whether the respondent was not working during the previous week. Contrary to the stereotype of the hard-drinking blue collar worker, it is actually the

white collar workers who are most likely to drink, and blue collar workers report lower average quantities consumed within the drinking population. Note that, while both men and women fall into the non-work category due to school or unemployment, for women the not-working class also includes a substantial number of women engaged in home care.

PROBLEM DRINKING

Measurement Table 2 shows the questions on problems resulting from alcohol use. Factor analysis confirmed the presence of three separate scales. The table indicates the items in each scale, along with the reliability for the scales and the item-total correlations.[4] The first scale consists of items indicating aggressive behavior under the influence of alcohol. The second scale includes reports of loss of control over drinking and solitary drinking. Loss of control over alcohol consumption is considered a factor in the diagnosis of alcoholism (Clark and Cahalan, 1977). The third scale, restricted to youth who had worked within the past year, focuses on problems on the job associated with drinking.

Table 3 shows the correlations among the alcohol problem indexes and the alcohol quantity measures. While aggression and control problems are clearly related, both to each other and to levels of alcohol consumption, problems at work are show much lower correlations with the other indexes. The low correlations between work problems and the other indexes is due in part to the

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[4]Item total correlations indicate the correlation of each item in the scale with the sum of the remaining scale items. The statistic helps indicate how well each item fits with the others, without the inflation which would result from correlating the item with the full scale including the item itself. The reliability coefficient indicates the degree to which respondents tend to respond similarly to each scale item. Alpha is generally a conservative estimate of reliability. Item total correlations and reliabilities were calculated using the Reliability program of SPSS-X.

Table 2: Reliability Analysis for Problem Drinking Scales[a]

Now I would like to ask you some questions about experiences that many people have had with drinking. During the past year . . .	Percent Reporting Problem	Item-Total Correlation	Scale Mean (Alpha)
Alcohol-related aggression[b]			.587 (.711)
Have you felt aggressive or while drinking?	18	.519	
Have you gotten into a heated argument while drinking?	17	.602	
Have you gotten into a fight while drinking?	8	.481	
Have you awakened the next day not being able to remember things you had done while drinking?	15	.397	
Loss of control[b]			.397 (.608)
Were you afraid you might be an alcoholic or that you might become one?	7	.366	
Once you started drinking, was it difficult for you to stop before you became completely intoxicated?	6	.349	
Have you often taken a drink the first thing when you got up in the morning?	3	.273	
Have your hands shaken a lot the morning after drinking?	4	.305	
Have you sometimes gotten high or tight when drinking by yourself?	12	.341	
Have you sometimes kept on drinking after promising yourself not to?	9	.421	
Alcohol-related work problems[c]			.119 (.824)
Have you stayed away from work because of a hangover?	4	.440	
Have you gotten high or tight when on the job?	4	.440	
Have you lost a job, or nearly lost one, because of drinking?	2	.684	
Has drinking led to your quitting a job?	1	.702	
Has drinking hurt your chances for promotions or raises or a better job?	1	.696	

[a] All items report problems for the past year.
[b] Universe: Respondents who drank in month prior to interview date (N=8273).
[c] Universe: Respondents who worked in past year (N=7084).

Table 3: Correlations between Drinking Levels and Problem Drinking Scales

	1	2	3	4	5	6
1. Aggression Problems	1.00	0.45	0.13	0.26	0.36	0.32
	0.00	0.00	0.00	0.00	0.00	0.00
	8285	8285	6779	8285	8285	8285
2. Control Problems		1.00	0.19	0.22	0.32	0.25
		0.00	0.00	0.00	0.00	0.00
		8285	6779	8285	8285	8285
3. Work Problems			1.00	0.05	0.09	0.05
			0.00	0.00	0.00	0.00
			6780	6780	6780	6780
4. Total Number Days R Drank Alcohol In Last Month				1.00	0.86	0.16
				0.00	0.00	0.00
				8294	8293	8293
5. Total Number Drinks In Last Month, 1984					1.00	0.48
					0.00	0.00
					8293	8293
6. Average Quantity Consumed per Day of Drinking						1.00
						0.00
						8293

Pearson Correlation Coefficients
Prob > R under HO:RHO=0
Number of Observations

Universe: Respondents reporting at least one drink in the past month.
Universe: Repondents employed during previous week, who had at least one drink in the past month.

distribution; even among youth who were employed, very few report any problems on the job due to alcohol. Fewer than six percent of all respondents reported work-related problems with alcohol. In contrast, over one fourth of the youth reported problems with aggressiveness while drinking, and another fifth report some instance of loss of control over alcohol.

While each problem area produced a multi-point scale, the distributions were quite skewed, as expected. For analysis purposes, the scales were dichotomized based on whether or not a respondent reported any problems in a given problem list. The proportions of youth reporting drinking problems are shown in Table 4, both for the entire population and for the subpopulation of people who drank in the past month. Most of the relationships are significant, although the significance levels are low relative to the sample size for reports of work problems.

In line with their higher use of alcohol, males report more problems as a result of drinking than do females. Aggressive behavior under the influence of alcohol is reported more frequently by whites, as would be expected from their higher levels of consumption. Among males, minorities, particularly blacks are more likely than whites to report problems of loss of control over drinking. Within sex group, there is little variation by race in reports of work related problems.

Age, somewhat surprisingly, shows little relationship with problem drinking, except for problems with alcohol-related aggression, which generally decline with age.

More educated respondents are less likely to report drinking problems. The most dramatic difference is between high school dropouts and high school graduates. Among drinkers, high school dropouts are 25 to 50 percent more likely to report drinking-related problems than are terminal high school graduates.

Table 4: Drinking Problems by Selected Characteristics

Characteristic	Type of Problem					
	Aggression % Problem		Loss of Control % Problem		Workplace % Problem	
	All Respondents	Drinkers Only	All Respondents	Drinkers Only	All Respondents	Drinkers Only
Total Sample	26	34	19	25	6	8
Sex and Race						
Hispanic Males	25**	31**	27**	34**	7**	8**
Black Males	23	31	3	42	7	10
White Males	35	42	24	29	8	9
Hispanic Females	1	18	9	15	3	5
Black Females	9	17	11	20	2	4
White Females	20	27	13	18	4	5
Age						
19	30*	39**	19	25	5	6
20	29	40	2	27	5	7
21	27	34	19	24	6	8
22	26	34	19	24	6	8
23	27	35	20	26	6	8
24	23	31	21	28	5	7
25	23	30	18	24	6	8
26	21	29	17	23	7	9
27	20	27	14	19	5	7
Education and Enrollment Status						
Less than 12 years	30**	44**	27**	39**	8**	13**
12 years	25	35	19	26	6	8
13-15 years	23	30	18	23	5	7
16 or more years	21	26	14	17	4	5
Student	26	31	16	20	4	5
Poverty Status						
Nonpoor	25	33**	18**	24**	6	8*
Poor	26	27	22	31	5	8
Occupational Status						
White Collar	30**	39**	23**	29**	7**	9**
Blue Collar	22	28	15	19	5	6
Not Employed	20	35	19	30	--	--

** Chi Square probability < .01
* Chi Square probability < .05

Poverty status shows an inconsistant relationship with drinking problems. The non-poor are more likely to report problems with aggressiveness, while the poor are more likely to report control problems. The pattern parallels the pattern for race.

Contradicting the stereotype of the hard-drinking blue collar worker, the table shows that white collar workers report higher levels of drinking problems than blue collar workers, however problems are defined.

Multivariate analysis. Of course, all of these status indicators are intercorrelated. As a first cut at untangling the knots, logit regressions were run, using two models.[5] The first used the status indicators only, the second added terms for the quantity and frequency of alcohol use. The analysis was restricted to youth who reported at least one drink in the past month, so the interpretation of the results should focus on variations in problem drinking within the drinking population.

As with the analysis of drinking patterns, contrasted with the large sample size, the results show that these status constructs account for relatively little of the variance in drinking problems. The results for problems at work, in particular, indicate that despite the significance of individual parameters, the overall result does not reach conventional levels of acceptable significance. These results are presented, but not discussed further.

As Tables 5 and 6 show, controlling on the frequency of drinking and the amount of alcohol consumed on a average drinking day does not substanatially change the results. Results for men and women are roughly similar, but only the results for aggression problems are significant for the women. Minority

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[5] OLS regressions were also run, and showed quite similar results. Dichotomizing the variables seems not to lose much information in this case, and avoids problems with normality assumptions with clearly non-normal data.

Table 5: Drinking Problems by Socioeconomic Status for Males

	Aggression		Control		Work	
	Drinking Controls	Status Indexes Only	Drinking Controls	Status Indexes Only	Drinking Controls	Status Indexes Only
Constant	-2.14**	-.111	-2.47**	-.828**	-3.69**	-2.50**
Race						
Black	-.309**	-.613**	.721**	.391**	.131	-.090
Hispanic	-.420**	-.487**	.123	.052	-.167	-.201
White	--	--	--	--	--	--
Age						
19-20	--	--	--	--	--	--
21-22	-.192	-.669	-.214*	-.187	.346	.346
23-24	-.229*	-.185	.052	.078	.322	.363
25-27	-.298**	-.333**	-.003	-.039	.424*	.421*
Education and Enrollment						
Less than 12 years	.136	.281**	.469**	.563**	.304*	.404
12 years	--	--	--	--	--	--
13-15 years	-.056	-.112	-.019	-.070	-.134	-.187
16 or more years	-.186	-.300*	-.263	-.359*	-.460	-.551*
Student	-.047	-.242*	-.342**	-.488**	-.581**	-.700**
Poverty Status	.260*	.259*	.337**	.332**	.134	.162
Occupational Status						
White Collar	--	--	--	--	--	--
Blue Collar	-.103	-.192*	-.050	-.128	.043	-.015
Not Working	.151	.100	.200*	.165	--	--
Alcohol Use						
Quantity	.397**		.307**		.217**	
Frequency	.063**		.051**		.037**	
N 4275	4275	4275	4275	3593	3593	
df	3183	272	3183	272	2580	189
x^2	3809	312	3741	308	1680	185
Probability	.00**	.05*	.00**	.07	1.00	.57

Table 6: Drinking Problems by Socioeconomic Status for Females

	Aggression		Control		Work	
	Drinking Controls	Status Indexes Only	Drinking Controls	Status Indexes Only	Drinking Controls	Status Indexes Only
Constant	-2.31	-.665**	-3.11**	-1.45**	-4.36	-2.78**
Race						
Black	-.550**	-.795**	.259*	-.055	-.001	-.295
Hispanic	-.411**	-.570**	-.185	-.361*	.170	-.011
White	--	--	--	--	--	--
Age						
19-20	--	--	--	--	--	--
21-22	-.190	-.215	.079	.032	.150	.075
23-24	-.053	-.098	.205	.143	.127	.063
25-27	-.258	-.315*	.176	.086	.280	.171
Education and Enrollment						
Less than 12 years	.059	.259*	.201	.395**	-.304	-.075
12 years	--	--	--	--	--	--
13-15 years	.087	-.022	-.084	-.180	-.447	-.562
16 or more years	-.159	-.233	-.388*	-.446*	-.300	-.411
Student	-.055	-.195	-.048	-.209	-.022	-.196
Poverty Status	.140	.181	.276*	.305**	.025	.086
Occupational Status						
White Collar	--	--	--	--	--	--
Blue Collar	-.180	-.208*	-.219	-.242	.001	-.056
Not Working	-.123	-.187	-.034	-.093	--	--
Alcohol Use Quantity	.362**		.351**		.341**	
Frequency	.083**		.087**		.059**	
N 3383	3383	3383	3383	2704	2704	
df	2329	276	2329	276	1777	186
X^2	2507	270	2219	309	815	165
Probability	.005*	.586	.948	.086	1.000	.86

youth are less likely than whites to report aggressive episodes while drinking, but more likely to report a loss of control over their alcohol use. Actually, since blacks drink less than whites, controlling for alcohol consumption levels actually increases the association between race and control problems.

As observed in the descriptive table, alcohol-related aggression reduces with age. On the other hand, work problems are significantly positively associated with age, a result which was not indicated earlier. The age result may be affected by the inclusion of educational status, since the upper levels of education are out of reach of most of the younger members of the sample.

By and large, the pattern of declining alcohol problems with higher levels of education holds for the multivariate analysis as well as the cross-tabular table. Adding the drinking measures makes a substantive difference in results only for aggression problems, which are no longer strongly differentiated by educational status.

Contrary to the bivariate results, poverty is positively associated with drinking problems, once other factors, including drinking levels, are controlled. At least for aggression, the overrepresentation of blacks among the poor may suppress the relationship between poverty and drinking related problems, since relatively few blacks report such problems.[6]

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[6]This interpretation is supported by analyses not show here which demonstrate that the coefficient for poverty is much smaller when race is omitted from the model.

CONCLUSIONS

Clearly, alcohol use is not well accounted for by broad socioeconomic categories. Several issues are suggested by the analysis. The first is th problem of refining the measure of drinking behavior. The categorical approach presented in the previous report (Crowley, 1985) have the advantage of describing variations in quantity and frequency of use simultaneously. On the negative side, there is little basis for external validation of the selected categories, and interpretation of appropriate multivariate statistics such as multinomial regression and log linear analysis can be tortuous.

Conversely, the individual quantity and frequency indexes used in this report can be analysed using a variety of well-established techniques. The disadvantage is that the multiple analyses are not really independent, and given the differences in scaling and measurement properties contrasts between effect sizes may be difficult to interpret with confidence.

Whichever strategy is used, clearly both quantity and frequency of drinking are distinct dimensions of drinking behavior, and the distinction must be respected in the interpretation of results.

Substantively, perhaps the most important result is the relationship between race and drinking problems. Blacks have a higher prevalence of cirrhosis than do whites, and yet among the NLS respondents they report lower levels of alcohol consumption by any measure used. At the same time, blacks are significantly more likely than whites to report problems with control over drinking behavior. Whether the lack of control indicates socially learned behavior or some differential distribution of physical response to alcohol as a drug is, of course, impossible to determine from the available information.

Beyond the issues of measurement and analysis of drinking behavior, this analysis points up the importance of going beyond consumption measures to

include measures of the consequences of alcohol use. Drinking quantity and frequency are, of course, almost tautologically related to drinking problems, and any results which suggested the contrary would have to be considered suspect. However, few conclusions regarding the patterns which were observed in the relationship between status variables and drinking problems were affected by the inclusion of drinking behavior in the models. Even with these fairly weak predictors, it is clear that alcohol related problems are not simply a function of alcohol consumption. Continued assessment of both drinking behavior and drinking consequences will produce a more sophisticated grasp of the functions of alcohol use than could be obtained with either alone.

References

Armor, David J.; and J. Michael Pollich, "Measurement of Alcohol Consumption," Encyclopedic Handbook of Alcoholism, edited by E. Mansell Pattison and Edward Kaufman. New York: Gardner Press, 1982: 72-80.

Clark, Walter B. and Don Cahalan. "Changes in Problem Drinking Over a Four Year Span," Emerging Concepts of Alcohol Dependence, edited by E. Mansell Pattison, Mark B. Sobell, and Linda C. Sobell. New York: Springer Publishing Company, 1977: 70-185.

Crowley, Joan E. "Demographics of Alcohol Use Among Respondents of the 1982 National Longitudinal Survey of Labor Market Experience of Youth Panel." Mimeo, Center for Human Resource Research, 1984.

_____. "The Demographics of Alcohol Use Among Young Americans: Results from the 1983 National Longitudinal Survey of Labor Market Experience of Youth." Mimeo, Center for Human Resource Research, 1985.

Institute of Medicine. Alcoholism, Alcohol Abuse, and Related Problems: Opportunities for Research. Washington, DC: National Academy Press, 1980.

Radosevich, Marcia; Lonn Lanza-Kaduce; Ronald L. Akers; and Marvin D. Krohn. "The Sociology of Adolescent Drug and Drinking Behavior: A Review of the State of the Field: Part I." Deviant Behavior 1 (1979): 15-35.

_____. "The Sociology of Adolescent Drug and Drinking Behavior: A Review of the State of the Field: Part II." Deviant Behavior 1 (1980): 145-169.

Smart, R.G.; and G.F. Murray. "A Review of Trends in Alcohol and Canabis Use Among Young People." Bulletin on Narcotics 33,4 (1981): 77-90.

Appendix I: Mean Characteristics by Sex, Age and Interview Year

Table A1: Mean Number of Days Drank in the Previous Week, by Sex, Age and Interview Year

Age	Males			Females		
	1982	1983	1984	1982	1983	1984
17	0.79		--	0.43	--	--
18	1.15	1.11	--	0.77	0.74	--
19	1.60	.144	1.54	0.86	0.81	0.91
20	1.60	1.67	1.59	0.91	0.78	0.87
21	1.86	1.77	1.81	1.06	0.87	0.90
22	1.92	1.78	1.79	0.99	0.97	0.95
23	2.02	1.81	1.90	1.04	0.91	1.00
24	1.81	2.06	1.77	0.97	0.96	0.90
25	2.42	1.78	1.84	0.81	0.82	0.99
26	--	1.93	1.85	--	0.54	0.87
27	--	--	1.94	--	--	0.65

Table A2: Mean Number of Drinks in the Previous Week, by Sex, Age, and Interview Year

Age	Males			Females		
	1982	1983	1984	1982	1983	1984
17	4.42	--	--	1.34	--	--
18	6.29	5.80	--	2.82	2.92	--
19	8.70	7.81	9.24	2.88	2.93	3.99
20	9.04	8.79	9.42	3.54	2.36	4.19
21	10.06	8.30	10.06	3.95	3.05	3.51
22	10.36	8.33	9.65	3.48	3.41	4.00
23	10.01	8.10	9.78	3.72	2.87	3.83
24	8.44	8.73	8.71	2.97	2.93	3.48
25	12.10	7.26	9.45	2.28	2.25	3.23
26	--	9.84	8.63	--	1.49	2.64
27	--	--	8.87	--	--	1.75

Table A3: Mean Number of Drinks Per Day in the Previous Week, by Sex, Age and Interview Year

Age	Males			Females		
	1982	1983	1984	1982	1983	1984
17	2.21	--	--	0.80	--	--
18	2.55	2.61	--	1.37	1.42	--
19	3.33	3.07	3.10	1.44	1.36	1.71
20	3.41	3.28	3.29	1.73	1.35	1.63
21	3.51	3.06	3.37	2.03	1.73	1.61
22	3.80	3.08	3.08	1.78	1.62	1.72
23	3.53	2.89	3.14	1.79	1.41	1.57
24	3.22	3.11	2.95	1.48	1.56	1.38
25	3.84	2.70	3.18	1.13	1.19	1.27
26	--	3.11	2.82	--	0.79	1.18
27	--	--	3.10	--	--	0.93

APPENDIX 2

1984 Survey Instrument: Alcohol Use Section

SECTION 13: ALCOHOL USE

1. Next I'd like to ask you some questions about drinking alcoholic beverages, including beer, wine, and liquor. Have you ever had a drink of an alcoholic beverage?

Yes	1	41/
No ..... (SKIP TO Q.15)	0	

---

2. Have you had any alcoholic beverages, including beer, wine, or liquor, during the last 30 days?

Yes ..... (GO TO Q.3).....	1	42/
No ..... (ASK A AND B)	0	

A. Has drinking ever interfered with your school work?

Yes	1	43/
No	0	

B. Has drinking ever interfered with your work on a job?

Yes	1	44/
No	0	

SKIP TO Q.15

---

3. How often have you had 6 or more drinks on one occasion during the last 30 days? Would you say it was .... (READ CATEGORIES) .....?

HAND CARD JJ

10 or more times	6	45/
8 or 9 times	5	
6 or 7 times	4	
4 or 5 times	3	
2 or 3 times	2	
Once	1	
Never	0	

4. During the last 30 days, on how many days did you drink any alcoholic beverages, including beer, wine, or liquor?

ENTER # OF DAYS: |__|__| 46-47/

5. Of the (NUMBER OF DAYS IN Q. 4) days you mentioned, on how many of those days did you have only 1 drink? On how many of those days did you have only 2 drinks? (REPEAT QUESTION FOR ALL CATEGORIES AS NECESSARY)

HAND CARD KK

. . .only 1 drink?	ENTER # OF DAYS: |__|__|	48-49/
. . .only 2 drinks?	ENTER # OF DAYS: |__|__|	50-51/
. . .only 3 drinks?	ENTER # OF DAYS: |__|__|	52-53/
. . .only 4 drinks?	ENTER # OF DAYS: |__|__|	54-55/
. . .only 5 drinks?	ENTER # OF DAYS: |__|__|	56-57/
. . .6 or more drinks?	ENTER # OF DAYS: |__|__|	58-59/
	+	
TOTAL # OF DAYS =	|__|__|	60-61/

A. INTERVIEWER: DOES TOTAL # OF DAYS OF Q. 5 = # OF DAYS IN Q. 4?

YES..... 1

NO...(RECHECK Q.4 AND Q.5 WITH R).... 0

6. How often in the last 30 days did you go to bars, taverns, or cocktail lounges? Did you go ... (READ CATEGORIES) ...? (INTERVIEWER: DO NOT INCLUDE RESTAURANTS)

HAND CARD LL

Almost every day	5	62/
Several times a week	4	
Once or twice a week	3	
2-3 times during the month	2	
Once this month	1	
Never	0	

7. During the last 30 days, on how many days have you had a hangover that interfered with your activities the next day?

ENTER # OF DAYS: |__|__| 63-64/

Never 00

Next, I'd like some information about drinking alcoholic beverages, including beer, wine, and liquor, during the past week.

8. During the last seven days ending with yesterday, on how many days did you drink alcoholic beverages?

1 day	01	65-66/
2 days	02	
3 days	03	
4 days	04	
5 days	05	
6 days	06	
7 days	07	
None .....(SKIP TO Q. 12).....	00	

---

9. During the last seven days, how many cans or bottles of beer did you have?

ENTER NUMBER OF CANS OR BOTTLES: |__|__| 67-68/

None 00

---

10. During the last seven days, how many glasses of wine did you have?

ENTER NUMBER OF GLASSES: |__|__| 69-70/

None 00

---

11. During the last seven days, how many drinks did you have containing liquor, such as whiskey, vodka, gin, brandy, etc.?

ENTER NUMBER OR DRINKS: |__|__| 71-72/

None 00

12. A. Has drinking ever interfered with your school work?

Yes	1	73/
No	0	

B. Has drinking ever interfered with your work on a job?

Yes	1	74/
No	0	

13. Now I would like to ask you some questions about experiences that many people have had with drinking. During the past year . . .

		YES	NO	
A.	Have you felt aggressive or cross while drinking?	1	0	75/
B.	Have you gotten into a heated argument while drinking?	1	0	76/
C.	Have you gotten into a fight while drinking?	1	0	77/
D.	Have you deliberately tried to cut down or quit drinking, but didn't manage to do so?	1	0	78/
E.	Were you afraid you might be an alcoholic or that you might become one?	1	0	79/
F.	Once you started drinking, was it difficult for you to stop before you became completely intoxicated?	1	0	BEGIN DECK 53 10/
G.	Have you awakened the next day not being able to remember things you had done while drinking?	1	0	11/
H.	Have you often taken a drink the first thing when you got up in the morning?	1	0	12/
I.	Have your hands shaken a lot the morning after drinking?	1	0	13/
J.	Have you sometimes gotten high or tight when drinking by yourself?	1	0	14/
K.	Have you sometimes kept on drinking after promising yourself not to?	1	0	15/

4 INTERVIEWER: HAS R WORKED IN THE PAST YEAR (HAVE LINES BEEN DRAWN IN ROWS A OR B OF THE **CALENDAR**)?

Yes ..... (ASK A-E) 1 16/

No ..... (GO TO Q.15) 0

A.	Have you stayed away from work because of a hangover?	1	0	17/
B.	Have you gotten high or tight when on the job?	1	0	18/
C.	Have you lost a job, or nearly lost one, because of drinking?	1	0	19/
D.	Has drinking led to your quitting a job?	1	0	20/
E.	Has drinking hurt your chances for promotion or raises or a better job?	1	0	21/

5. INTERVIEWER: WAS ANYONE ELSE PRESENT OTHER THAN SMALL CHILDREN WHEN YOU ASKED THE QUESTIONS IN SECTION 13?

YES 1 22/

NO 0

PHONE INTERVIEW 2

The Center has also been active in manpower planning both in the U.S. and in the developing countries. A project for the Ohio Advisory Council for Vocational Education identified the highly fragmented institutions and agencies which supply vocational and technical training in Ohio. Subsequent projects for the Ohio Occupational Information Coordinating Committee have followed graduates of these programs. These data and information on occupational distributions of employers collected for the Occupational Employment Statistics Program are being integrated into a comprehensive planning model which will be accessible to trainees and employers and linked to a national network.

Another focus of the Center's research is industrial relations and collective bargaining. In a project for the U.S. Department of Labor, staff members are working with unions and management in a variety of industries to evaluate several current experiments for expedited grievance procedures. The procedural adequacies, safeguards for due process, and cost and timing of the new procedure are being weighed against traditional arbitration techniques.

Senior staff also serve as consultants to many boards and commissions at the national and state level. Recently the Center's staff have produced papers and prepared testimony for the Department of Labor, the Vice President's Task Force on Youth Unemployment, the Joint Economic Committee of Congress, the National Commission for Employment and Unemployment Statistics, the National Commission for Employment Policy, the White House Conference on the Family, the Ohio Department of Corrections, the Ohio Board of Regents, the Ohio Governor's Task Force on Health, and the Ohio Governor's Task Force on Welfare.

The Center maintains a working library of approximately 10,000 titles, including a wide range of reference works and current periodicals, as well as an extensive microfilm and microfiche collection. Through their facilities linked to the University computer, the Center's data processing staff provide statistical, technical, and programming support both for in-house researchers and the over 250 users of the National Longitudinal Surveys data tapes. They maintain the NLS tapes, data base, documentation, and associated software.

For information on specific Center activities, write: Director, Center for Human Resource Research, 5701 North High Street, Worthington, Ohio 43085.

OSU

The Ohio State University

The Center for Human Resource Research
5701 North High Street
Worthington, Ohio 43085

Center for Human Resource Research

The Center for Human Resource Research is a policy-oriented multidisciplinary research organization affiliated with The Ohio State University. Established in 1965, the Center is concerned with a wide range of contemporary problems related to developing and conserving human resources. Its more than thirty senior staff members come from disciplines including economics, education, English, health sciences, industrial relations, management science, psychology, public administration, social work, and sociology. This multidisciplinary team is supported by approximately 70 graduate research associates, full-time research assistants, computer programmers, and other personnel.

The Center has become preeminent in the fields of labor market research and manpower planning. With continuing support from the United States Department of Labor, the Center has been responsible since 1965 for the National Longitudinal Surveys of Labor Market Experience. Staff have assisted in population and human resource planning throughout the world, having conducted major studies in Bolivia, Ecuador, Kenya, Sierra Leone, Venezuela, and Zaire. At the request of the National Science Foundation, a review of the state of the art in human resource planning was conducted. Other studies have assessed the impact of labor and education policy on labor supply and evaluated employment statistics collection methods. Senior personnel are also engaged in several other areas of research—collective bargaining and labor relations, evaluation and monitoring of the operation of government employment and training programs, and the projection of health education and facility needs.

The Center for Human Resource Research has received over two million dollars annually from government agencies and private foundations to support its research in recent years. Providing support have been the U.S. Departments of Labor, State, Defense, Education, Health and Human Services; Ohio's Health and Education Departments and Bureau of Employment Services; the Ohio cities of Columbus and Springfield; the Ohio AFL-CIO; the George Gund Foundation; the Rockefeller Foundation; and the Ford Foundation. The breadth of the Center's research interests is best illustrated by a brief review of a few of its current projects.

The Center's largest project is the National Longitudinal Surveys of Labor Market Experience. This project has involved repeated interviews over a fifteen-year period with four groups of the United States population: older men, middle-aged women, and young men and women. The data are collected for 20,000 individuals by the U.S. Bureau of the Census, and the center is responsible for data analysis. Since 1979, the NLS has followed an additional cohort of 13,000 young men and women between the ages of 14 and 21. This cohort includes for the first time those serving in the armed forces at the time of the initial interview. In addition to being the definitive U.S. national data set on the labor market activities of young adults, this continuing survey includes unique batteries of questions on such socially important issues as delinquency, alcohol and drug use, fertility, and prenatal care. For this cohort, field work is handled by the National Opinion Research Center. To date the Center's staff have prepared dozens of research monographs, special reports, and books on the NLS, and they also prepare and distribute data tapes for public use.

The Quality of Work Life Project, another ongoing study, began in 1975 as an attempt to improve the productivity and the meaningfulness of work for public employees in the cities of Springfield and Columbus. Center staff also served as third party advisers and researchers exploring new techniques for attainment of management-worker cooperation and worker health in a number of central Ohio private sector industries.

(Continued on inside back cover)